

BEAUFORT COUNTY BOATING MANAGEMENT PLAN



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By: Applied Technology and Management, Inc.



TABLE OF CONTENTS

1.0	INTRODUCTION.....	1
2.0	METHODOLOGY.....	3
2.1	Literature Review.....	3
2.2	Data	6
2.3	Mapping.....	6
2.4	Meetings and Interviews	7
3.0	BOATING FACILITIES INVENTORY.....	11
3.1	Background.....	11
3.2	Boat Landings	11
3.3	Marinas.....	15
3.4	Private Docks	15
3.5	Current Policies on Siting New Facilities	18
3.6	New Boating Facility Recommendations by County Government and Municipalities.....	18
4.0	SENSITIVE NATURAL AND CULTURAL RESOURCES	21
4.1	Introduction.....	21
4.2	Current Conditions	21
4.3	Recommendations and Management Actions	22
5.0	PATTERNS OF BOATING USE.....	23
5.1	Current Conditions	23
5.2	Future Trends.....	25
6.0	WATERWAY USE CONFLICTS	27
6.1	Introduction.....	27
6.2	Natural Resource Management Conflicts	29
6.3	Upland Property and Waterway Use Conflicts.....	31
6.4	Waterway User Conflicts	31
7.0	RECOMMENDATIONS	34
7.1	Siting of New Marina and Boat Ramp Facilities	34
7.2	Future Demand and Water Access Facility Needs	36
7.3	Siting of Community Docks and Single-family Docks.....	36
7.4	Natural Resource Management	37
7.5	No Wake Zones And Waterway Use Restrictions	44
7.6	Post Hurricane/Disaster Plan	49
7.7	Summary of Recommendations	50
8.0	IMPLEMENTATIONS.....	53
8.1	Background.....	53
8.2	Beaufort County Waterway Advisory Committee	53
9.0	REVENUE SOURCES	55
9.1	Private and Public Grants for Plan Implementation	55
9.2	Alternative Sources of Funding	56
	APPENDICES	58
	Appendix A—References	58

Appendix B—Municipality Interviews58

Appendix C—OCRM Marina Regulations58

Appendix D— Beaufort County Dock Ordinance58

Appendix E—Articles58

Appendix F—Draft Broad Creek Management Plan.....58

Appendix G—Sewer Pump-Out Grant Applications58

Appendix H—Personal Watercraft Regulation Examples58

Appendix I—Mapping Database58

1.0 INTRODUCTION

Beaufort County is surrounded by water in all directions. The riverine flow from the upstate and the tidal flow from the Atlantic Ocean, as well as the coastal Gulf Stream flow, all impact the waters of Beaufort County and its inhabitants. Beaufort County can be characterized as being one-half land and one-half water; there are 330,895 square miles of uplands and 337,983 square miles of water and marshlands (Beaufort County Planning Department, 2001). The waterways of the county provide natural resources for consumption, byways for travel and transport, recreational resources for residents and visitors, and outstanding vistas for all to enjoy.

In 1995, clean water became the objective of a study conducted by a small, but representative group of water users in the county. One of the outcomes of the Clean Water Task Force study (Clean Water Task Force, 1997) was identification of the need to characterize current uses of Beaufort County waters, and project future waterway uses based upon population projections, development, and environmental impacts.

The citizens and officials of Beaufort County are committed to maintaining the traditional uses of the waterways. In order to be effective in this mission, sound guidelines for use of local waters through education, conservation, and enforcement are needed. The future impacts of boating on Beaufort County waters must be viewed holistically and cumulatively in order to determine the best management practices that will ensure sustainability of multiple uses.

Beaufort County waterways have been traditionally used for shipping, commerce, fishing, and recreational boating. The population of Beaufort County, especially the southern portion, has experienced an explosive growth during the last 10 years. Based upon projections by the county, the population will continue to grow at a rate of 4% annually over the next 20 years (Beaufort County Planning Department, 2001). About 10% of this population growth represents new boaters, and over the next twenty years the county will likely see a doubling of boating use (National Marine Manufacturers Association, 2000).

Although there is an abundance of navigable water in Beaufort County, government officials, fishermen, recreational boaters, enforcement and natural resource agencies are seeing conflicts in use of local waterways. Periodic high boat traffic in navigable channels, conflicts between dock owners and commercial fishermen, and concern for protection of water quality and ecologically sensitive areas are issues that are frequently voiced today. The growth of boating in Beaufort County will need to be managed to ensure safe recreational and commercial use of the waterways and to protect the ecological and fishery resources of the local waters.

The purpose of this plan is to “address the improvement of water quality and aquatic resources” in Beaufort County. The plan attempts to balance aesthetic issues (natural and cultural resources, shellfish areas, etc.) with public access issues (recreation, user conflicts, user restrictions, etc) by addressing the following topics:

- ? The status of County boating (marinas, landings, docks, users, etc.)

- ? Water-related factors (natural resources, No Wake Zones, No Discharge Zones, existing facilities, etc.)
- ? The relationship between water quality and adequate recreational access to local waters

Section 2 is a review of the methodologies used in developing the data and information (literature research, mapping, and interviews). Sections 3 through 7 develop the individual issues and address the current conditions and recommendations for each. Finally, Section 8 reviews a listing of potential funding sources for the implementation of the Boating Management Plan.

This Boating Management Plan includes:

1. An updated inventory of major boating access facilities (marinas, boat ramps, docks, etc.) in Beaufort County,
2. A review of regulations and policies that currently guide the development of these facilities,
3. Identification of sensitive habitat and cultural areas,
4. A review of current types of boating and patterns of use,
5. Identification of waterway use conflicts, and
6. A series of recommendations to address facility siting policies and regulations, boating operation issues, and boating use of environmentally and culturally sensitive areas in Beaufort County waters.

2.0 METHODOLOGY

The development of a Boating Management Plan (BMP) required collection of pertinent information on existing conditions from numerous sources of data and reports. Existing water access facilities and resource areas were located and incorporated into a Geographical Information System (GIS) database, which is provided in digital format with this report. Much of this GIS data is shown on the base map in Figure 1. Current patterns of boating use, access needs, and potential conflicts were identified based on extensive interviews of waterway users (e.g., sport fishermen, commercial fishermen), public officials, and the staffs of Beaufort County and the municipalities. A limited boat user survey was also conducted to observe patterns of boating use on a busy weekend. The methodology also included extensive discussions with members of the Clean Water Task Force, the Special Area Management Plan Advisory Group, and the South Carolina Department of Health and Environmental Control - Office of Ocean and Coastal Resource Management (SCDHEC-OCRM).

2.1 Literature Review

In recent years, management of boating activities in coastal as well as inland waters has been an important element of comprehensive planning efforts. Coastal zone watershed management plans have included recommendations for reducing waterway use conflicts in recreational waters. The primary goals for boating management programs include public safety, environmental protection as well as aesthetic preservation and noise reduction.

In tourist areas such as Key West, Florida, The Key West City Commission has developed an ordinance to establish a Key West Marine Park, which will provide a zoned management system to restrict power boating and swimming areas along the near shore and idle speed/no wake zones along the city's waterfront (City of Key West, 2001).

The Pennsylvania Department of Conservation and Natural Resources (DCNR) and the Pennsylvania Fish and Boat Commission (PFBC) have proposed changes to boating horsepower limits at some state parks (Pennsylvania Department of Conservation and Natural Resources, 2001).

New Jersey's Tidelands Resource Council has approved its first marine conservation zone, which bans personal watercraft (PWC), commercial boats and kayak tour operators from 238.8 hectares of marshland and shallow water at the Sedge Islands at Island Beach State Park (Boating Industry International, 2001).

The state of New Jersey developed the Barnegat Bay Watershed Management Plan, which included the impact of boating activities (SOBA, 1993).

The Maine Department of Conservation determined that management plans were needed for all state-owned facilities in order to resolve conflicts between recreational boaters, waterside property owners and other waterway users and wildlife (SOBA, 1993).

The National Oceanic and Atmospheric Administration (NOAA) has finalized rules to prohibit recreational use of PWC throughout California's Farallones National Marine Sanctuary due to threats to the area's wildlife, visitors, and ecology (Boating Industry International, 2001).

The Lower Colorado River Authority in Texas (LCRA) completed a Boating Recreation Study in 1999 and produced the 2000 Lake Travis Texas Recreation Management Plan, that address watercraft noise and speed, environmental protection, congestion and conflicts, boating education, and law enforcement in this popular recreational lake (LCRA, 1999; 2000).

The National Park Service (NPS) announced on April 16, 2002 that five National Park sites will be closed to PWC use effective April 22, 2002. The five sites scheduled to close PWC use includes Cape Cod National Seashore, Indiana Dunes National Lakeshore (IN), Delaware Water Gap National Recreation Area (PA/NJ), Cumberland Island National Seashore (GA), and Whiskeytown National Recreation Area (CA). These five areas are part of the original 21 sites identified in April 2000 by the agency as places where continued use of this water-based recreational activity might be appropriate, but needed further evaluation.

The remaining 16 sites will proceed with special regulations as required by the national PWC rule finalized in April 2000, which will include conducting environmental assessments or environmental impacts statements under the requirements of the National Environmental Policy Act, preparing an economic analysis seeking public comment throughout the entire process. Eight of these parks, Assateague Island National Park (MD/VA), Big Thicket National Park (TX), Pictured Rocks National Lakeshore (MI), Fire Island National Park (NY), Gateway National Recreation Area (NY/NJ), Gulf Islands National Seashore (MS/FL), Padre Island Seashore (TX), and Cape Lookout National Seashore (NC) will close to PWC use on April 22, 2002, based on final rule and will remain closed until the planning process is completed. The other eight parks, Amistad Recreation Area (TX), Curecanti National Recreation Area (CO), Chickasaw National Recreation Area (OK), Bighorn Canyon National Recreation Area (MT/WY), Lake Meade National Recreation Area (NV/AZ), Meredith National Recreation Area (TX), Glen Canyon National Recreation Area (UT/AZ) and Lake Rome National Recreation Area (WA) will continue to allow PWC use through September 15, 2002, based on an approved Settlement Agreement between NPS and the Bluewater Network (National Park Service, 2002).

The Virginia Department of Environmental Quality uses multiple-use waterway planning in the Hampton Roads region, which is one of the fastest growing areas in the state (Virginia Department of Environmental Quality, 1998). The rapid growth has resulted in an increasing number of people who enjoy water-based recreation. These increased numbers have given rise to user conflicts as the spatial and natural limitations of the region's waterways are reached. Conflicts have occurred between recreational users, natural resources, and waterfront residents.

Multiple-use waterway planning takes a comprehensive approach to managing coastal waters by simultaneously addressing public safety, environmental, and recreational issues. The Hampton Roads Planning District Commission (PDC) initiated a waterway management study in 1996, and has developed pilot management plans for two waterways in Hampton Roads—the Hampton River located in Hampton and the Lynnhaven River system located in Virginia Beach. The PDC identified two key issues of concern in the Water Management Study:

1. A lack of awareness by the recreational public of existing natural resources in waterways and the impacts their activities may have on these resources.

2. A lack of understanding by watercraft operators of existing waterway regulations and rules of navigation and safety.

The Water Management Plan provides information on the legal and institutional waterway use management framework, and recommends management options and actions (educational, administrative, legal or financial) to reduce the waterway use conflict in the region's waterways and of the existing waterway regulations and rules of navigation and safety. Examples of these recommended regulations include the implementation of slow no wake zones, parking restrictions, and prohibiting fishing in heavily trafficked areas to certain hours. Educational tools are also recommended in the Water Management Study to reinforce the necessity of the regulations. The suggested approaches to educating the public include posting signs and providing an informational guide to Virginia Beach's waterways.

The Florida Coastal Program utilizes the same approach through a waterway guide that provides information on boat ramps, marinas, fueling and pump out stations, existing state and federal laws, rules of courtesy, boating safety and navigational hazards, and an explanation of the environmental impacts of certain boating behaviors.

The Rhode Island Department of Environmental Management, Office of Water Resources, completed a Harbor Management Plan in 1999. Harbor areas support a variety of activities and resources including fishing, boating, commerce, habitat and recreation. Management decisions must be made in order to protect these uses and to minimize conflicts among them. In Rhode Island, the foundations for these decisions is the Harbor Management Plan that identifies existing conditions and potential problems, establishes goals, and makes recommendations for the use, development and preservation of the harbor and its resources. A first step in evaluating the harbor area is to collect information and inventory the resources. Municipalities are responsible for developing and implementing their Harbor Management Plans. The Coastal Resources Management Council, the state's coastal zone management agency, reviews and approves Harbor Plans for consistency with its Program and with policies and standards of the R.I. Department of Environmental Management (RIDEM) and U.S. Army Corp of Engineers (Rhode Island Department of Environmental Management, 2000).

Overviews of water quality, recreation, wildlife and land-use issues, complete with supporting maps and charts, lay the groundwork for Hilton Head's first comprehensive plan for Broad Creek (Town of Hilton Head, 2002). The report will become part of the town's Comprehensive Plan and serve as a guideline for projects and new regulations. The planning was initiated to meet a goal of the updated Comprehensive Plan that the council adopted in 1999. The draft plan includes 56 recommendations for actions that can be taken to help improve conditions in, on, and along Broad Creek. Of those recommendations, 17 relate to public education.

The public education and outreach program included publication and distribution of seven brochures. Their topics are wildlife protection, shellfish preservation, recreational opportunities, boating safety, no wake zones and no discharge zones, septic systems and vegetative buffers.

Among these 56 recommendations of the plan are (Carolina Morning News, 2000):

- ? Expanding no wake zones to include the main channel of the creek between the Long Cove community docks and Broad Creek Marina and increase enforcement of existing no wake zones.
- ? Continued monitoring of the creek's waters to identify potential problems and successes.

All of the previously cited programs emphasize a national trend of natural resource management for multiple uses of our local waters.

2.2 Data

The main source of data was secondary in nature and included studies and reports developed for the county and nationwide over the past ten years. Other boating management studies were referenced as a comparison to South Carolina. Some of the more successful studies, such as the University of Delaware Sea Grant series, were used to format the interview questions and necessary data gathering for Beaufort County.

2.3 Mapping

Through the cooperative efforts of the four municipal planning departments (Towns of Hilton Head Island, Bluffton, Port Royal, and the City of Beaufort), as well as the Planning and GIS departments of the county, a comprehensive base map of Beaufort County was developed that includes the following items:

- ? Municipality Limits (Figure 2)
- ? County Roads (Figure 1)
- ? County Limits (Figure 1)
- ? Shorelines (Figure 1)
- ? Shellfish zones, approved, conditionally approved, restricted, prohibited (Figure 3)
- ? Marine pump-out locations (Figure 8)
- ? No-wake zone locations and signs (Figure 7)
- ? Marinas, private, public, and commercial (Figure 4)
- ? Docks, community, public, private, and commercial (Figure 5)
- ? Public boat landings (Figure 4)

The maps provide an overview of existing boating access points and private docks. An analysis of these locations in relation to natural resources (e.g., shellfish zones) and existing boating regulations (e.g., no discharge zones) was undertaken.

The GIS database and maps are provided as a means to view the potential effects of the facilities, uses, zones, etc., on an individual basis. For example, viewing the private dock locations and the approved shellfish zones together will begin to show areas of limited potential for new marinas, etc. The database, included with this report on a CD-ROM, can be reviewed and manipulated in the ArcView format that was used.

2.4 Meetings and Interviews

In an effort to determine both public and private opinions on the status of boating and water resources, extensive interviews and meetings were held throughout the county.

The following groups, organizations, and government entities were consulted in developing public input and needs:

- ? Beaufort County Planning and Public Works Departments
- ? Town of Hilton Head Island
- ? Town of Bluffton
- ? Town of Port Royal
- ? City of Beaufort
- ? Commercial Shrimpers, Fishermen, Oystermen, Crabbers
- ? Recreational Boaters and Personal Watercraft Users and Organizations
- ? Commercial Boating Operators: PWC and Kayak, Boat rentals and Charters
- ? Marina Operators
- ? SCDNR Law Enforcement and Marine Resources
- ? SCDHEC-OCRM Planning, Permitting, and Enforcement

These interviews and meetings reflect the majority of boating concerns, conflicts, needs, and desires for Beaufort County as a whole boating community. The results are included throughout the study and referenced where necessary. Since so much information was obtained in the interviews, some full texts have been summarized and provided in Appendix B.

Figure 1 Base Map

Figure 2 Municipalities

Figure 3 – Shellfish zones

3.0 BOATING FACILITIES INVENTORY

3.1 Background

Water dependent facilities in the county include boat landings, marinas, community docks, commercial berths and private docking facilities. Beaufort County owns and maintains most launching facilities. During 1993, the county produced a comprehensive report entitled, "The Beaufort County Boating Needs Assessment" (BNA) (Taylor, 1993). The report identified the condition of all of the existing boat launching ramps and made recommendations for development of new facilities. Over the past five years, Beaufort County has initiated the repair and/or development of several facilities (see Table 3-1). The County Engineering Department is planning to repair and/or upgrade all boat ramps in the county over the next few years (Beaufort County Engineer's Office, 2001).

There are 17 marinas in the county that provide wet slip and dry stack boat storage (SCDNR, 2000). Commercial docking facilities in Beaufort County include berthing for commercial fishermen (e.g., shrimpers) in proximity to ice houses and/or seafood processing and transport. Shrimp trawlers dock year round at various locations and are recognized by communities as traditional historic users of local waterways. There is one mooring field in use near the City of Beaufort as well as one on Broad Creek adjacent to Palmetto Bay Marina. The following sections describe the current conditions of boat landings, marinas, and commercial and private docking facilities in Beaufort County.

3.2 Boat Landings

Currently, there are 24 public boat landings in Beaufort County, the majority owned and operated by the county. As previously stated, the county is in the process of upgrading and improving the public access sites (Taylor, 1993). As shown in Table 3-1, the majority of the sites as reported in the BNA are now either adequate or underway for upgrades. Following is a listing of the sites and the current status of the improvements. There are an additional 15 boat ramps that are under private control in Beaufort County. The locations of all of the boat ramps are shown in Figure 4.

Picture1—Boat Landing

Table 3-1 Beaufort County Public Boat Landings

County Region	Ramp Name	Current upgrade status
Coastal Group	Butchers Island	Pending
	Russ Point	Underway
	Sands Beach	Pending
Combahee River/Wimbee Creek	Wimbee Creek	Pending
	Combahee (Steel Bridge)	Complete
	Sugar Hill	Pending
Coosaw River	Sam's Point	Underway
Beaufort River	Capers	Pending
	Parris Island	Complete
	Fort Frederick	Pending
	White Hall	Pending
	Pigeon Point	Complete
	Brickyard	Pending
	Station Creek	Complete
Broad River	Broad River	Pending
	Grays Hill	Underway
	Paige Point, Huspah	Underway
Chechessee / Colleton River	Lemon Island	Pending
	H.E.Trask	Pending
Hilton Head Island	Broad Creek	Underway
Daufuskie	Daufuskie Island	Underway
May River/ Mackays Creek	Buckingham	Pending
	Alljoy	Complete
	C. C. Haigh	Complete

Source: Beaufort County Boating Needs Assessment (BNA) (Taylor, 1993) and personal communication (Beaufort County Engineer, 2001).

Figure 4—Locations of Marinas and Boat Ramps

3.3 Marinas

The 17 marinas currently located in the county are listed in Table 3-2 with the numbers of slips and the two critical factors of fuel and pump-out services. They are also shown in Figure 4. Eleven of the marinas have sewage pump-out service.

Table 3-2 Marinas Located in Beaufort County, SC

Marinas	Fuel *	Pump-Out**	Wet Slips	Dry Slips
Dataw Island Marina	B	Y	72	100
Fripp Island Marina	B	N	65	
Marsh Harbor Boatyard	Boatyard only			
Downtown Marina of Beaufort	B	Y	100	
Lady's Island Marina		Y	80	
Battery Creek Marina		N		100
Port Royal Landing Marina	B	Y	130	
Skull Creek Marina	B	Y	179	
Hilton Head Boathouse	G	N		350
Outdoor Resorts Marina	B	Y	100	
Moss Creek Marina (private)		N	35	
Windmill Harbour Marina	B	Y	258	
Broad Creek Marina	B	N	12	
Shelter Cove Marina	B	Y	140	
Palmetto Bay Marina	B	Y	126	
Harbour Town Yacht Basin	B	Y	94	
Wexford Plantation (private)		Y	117	
Total			1508	550

*Fuel: G-gas; D-diesel; B-both

**Pump-Out: Y-Yes, N-No

Source: Applied Technology and Management, Inc., 2001, and SCDNR, 2000.

3.4 Private Docks

In 1999, there were approximately 1,623 private docks in Beaufort County, as shown in the 1999 SCDNR aerial photograph. These docks were located and entered into the database, by hand, from the aerial photography, and the numbers can be approximately monitored and updated by regular review of the permit requests for private docks from OCRM (Figure 5). Private dock permit applications along the coast continue to increase, with Beaufort County residents filing 261 requests in 2001 alone.

Picture 2-- Marina

Figure 5—Location of Private Docks

3.5 Current Policies on Siting New Facilities

New marina facilities have not been developed in Beaufort County over the last ten years, and it is highly unlikely that many new facilities would be developed based on a number of reasons. Areas with ORW and shellfish resources are generally protected by OCRM permitting regulations for the siting of marina facilities (OCR, 1999). DHEC Water Quality Standards for Outstanding Resource Waters (ORW) can limit the development of boat ramps in these high quality waters due to limitation on stormwater inputs (SCDHEC, 1998). In addition, the highest and best economic use of waterfront property in Beaufort County is usually in the form of single or multi-family housing. There is little to no waterfront property owned or controlled by Beaufort County or municipal governments. Therefore, there is little opportunity to provide additional public boating access.

The siting of boating-related facilities is managed under the South Carolina Coastal Zone Management Act under the authority of the SC Department of Health and Environmental Control, Office of Ocean and Coastal Resource Management (SCDHEC-OCR). OCR regulations require that any boating facilities be located, designed and constructed with minimal environmental impacts (South Carolina State Register, vol. 23, Issue 6, June 1999.). OCR regulations are located in Appendix C. According to OCR guidelines, drystack storage marina facilities and mooring fields are preferred over the construction of pier-heads and floating docks when possible. Also, more favorable consideration is given to community or shared docks over individual docks. OCR also favors redevelopment and/or expansion of existing facilities in order to address increased boating demand.

3.6 New Boating Facility Recommendations by County Government and Municipalities

As presented in the previous section, SCDHEC-OCR has the primary regulatory authority over the siting of new, or expansion of, water access facilities in Beaufort County, South Carolina. However, county government and local municipalities play an important role in providing boating access and management of local waters at the county and municipal level.

Beaufort County and municipal governments adhere to SCDHEC-OCR policy in reference to provision of boating access facilities and are subject to state regulations.

Beaufort County is proactive in providing access to local waters through an extensive boat ramp planning and development program as demonstrated by completion of a Boating Needs Assessment (Taylor, 1993).

A priority of this study included identification and review of county and local boating management issues and activities in Beaufort County.

Interviews and discussions were held with county and municipal officials and staff by ATM personnel in order to provide a current report on issues and needs. ATM researchers asked the county and each municipality to review current status and planning efforts related to new facilities and provide an update to the ATM research team. Names of the interviewees and detailed summaries are provided in Appendix B. The following section presents the recommendations from these planning groups. The Beaufort County Jurisdictional boundaries and municipalities are shown on Figure 2. Detailed summaries of these interviews are presented in Appendix B.

3.6.1 Town of Hilton Head

The Town of Hilton Head Island has been active in promoting no wake zones in Broad Creek and Skull Creek. The Town has also embarked on a Broad Creek Management Plan, a portion of which deals with boating management issues (Town of Hilton Head, 2002).

According to the planning staff, the town has acted on a need for a boat launching ramp on Broad Creek, to the south and east of the Cross Island Bridge, as recommended in the BNA study (Taylor, 1993). This property has been funded and is being planned and designed as a Beaufort County public access facility. The Town of Hilton Head has also identified a need for waterfront public access at Broad Creek and an increased boating venue to include accommodations for the Hilton Head Island Rowing Club training. Private marinas appear to provide adequate access to local waterways, and existing marinas have no expansion plans at this time (Town of Hilton Head, 2000). Most marinas on Hilton Head Island are near full occupancy and the island is also close to full build-out (Town of Hilton Head, 2000).

3.6.2 Town Of Port Royal

According to the Town of Port Royal staff, there are two marinas in the town, Battery Creek Marina and Port Royal Landing Marina (Perry, 2000). There are also three boat ramps in the Port Royal area. The town's goals include revitalization of the traditional waterfront for shrimping and seafood production, open space for public use, and development of a marina facility in conjunction with the SC State Port Authority.

There are also plans for a new drystack marina at Port Royal, which has received DHEC 401 certification and OCRM and USACE permits.

3.6.3 City Of Beaufort

The City of Beaufort has no plans at this time for upgrading the Beaufort Downtown Marina (City of Beaufort, 2000). A county-owned boat launching ramp at Pigeon Point is being turned over to the city for maintenance and improvements. All other ramps are county-owned and maintained. Due to the lack of adequate parking at the Downtown Marina and Day Dock, there are waterside traffic problems on holidays and special events. The City of Beaufort has identified two potential mooring sites near the Naval Air Station and adjacent to the Beaufort Downtown Marina.

3.6.4 Town Of Bluffton

The Town of Bluffton has no plans for marinas in the near future (Town of Bluffton, 2000). Development agreements with the owners of Palmetto Bluff include boat launching sites and community docks to gain access to the May River. Wet slip marinas are generally precluded by DHEC-OCRM when located in ORW and shellfish harvesting areas; therefore, there are no opportunities for marina development in the May River, which is an ORW and contains shellfish harvesting leases. Figure 2 shows the Town of Bluffton's location on the headwaters of both the May and New Rivers.

There are two public boat landings in Bluffton. The Beaufort County Open Land Trust has recently purchased the Old Oyster Factory property in downtown Bluffton. The Land Trust, working closely with the town is developing a master plan for the property. The plan will

include development of additional parking and potential improvements to the boat ramp, which will provide more efficient use of the facility (Town of Bluffton, 2002).

3.6.5 Beaufort County, Public Works

There were no plans for development of additional boat ramps in Beaufort County at interview time. However, the continued population growth in southern Beaufort County has the increased demand for additional facilities. The county Public Works would like to see an update to the Boating Needs Assessment of 1993 (Beaufort County Public Works Department, 2000).

3.6.6 Summary And Recommendations For New Facilities

At present, there appears to be adequate boating access facilities in operation within Beaufort County, and current plans exist to meet additional requirements in the near future. In general, protective water quality standards limit the development of new wet-slip marina facilities. Beaufort County has an excellent program for redevelopment of boat ramps that provide the primary public access to local waters. The boat count survey conducted during this study (see Section 5.2) indicated that the existing facilities are providing the desired level of service for most of the busy season (spring through fall).

The Beaufort County Engineering and Public Works Department should update the Boating Needs Assessment during the year 2002-2003. An update to the BNA would allow the county to assess its public access progress, reflect demographic changes, and revise estimated construction costs. The BNA should be expanded within the next 12 months to include detailed identification of areas for additional public boating access points. The original BNA addressed growth through 2010 – this timeframe should now be extended through 2020. Municipalities should take part in this BNA update.

4.0 SENSITIVE NATURAL AND CULTURAL RESOURCES

4.1 Introduction

There are a number of recognized ecologically-sensitive areas in Beaufort County that include headwater areas and tidal creeks that support shellfish and a diversity of aquatic species, bird life, and upland wildlife. These ORW include the Okatie-Colleton Rivers and the May and New Rivers in Southern Beaufort County. The May River and Okatie-Colleton Rivers are also important shellfish harvesting waters with most oyster harvesting leases being in an open or conditional status. The Bluffton Oyster Company is the last operating oyster-shucking facility in South Carolina.

4.2 Current Conditions

The SCDHEC Division of Water Quality and OCRM have developed policies and resolutions for siting and usage of highly sensitive areas. In general, wet slip marinas are precluded in ORW and shellfish harvesting areas. OCRM policy encourages the use of dry storage and community docks in these high quality waters. OCRM also encourages the use of shared docks and management of the proliferation of single-family docks through the dock master plan process. Although not precluded in ORW, DHEC water quality criteria for stormwater discharge often prevent the development of new boat ramps because of potential discharge issues (SCDHEC, 1998). Additionally, in 2000, Beaufort County enacted a dock ordinance that is designed to limit the length of docks in headwaters and tidal creeks and the number of docks along these waterways (see Appendix D).

The ORW of the May River, New River, and Okatie-Colleton Rivers are under intensive development pressure from the expansion and new development of residential communities and supporting commerce development. While regulations deem these sensitive waters generally off-limits to wet slip marina development, there is currently a strong demand for single-family docks and community docks. This demand will increase in the future. Private dock permit applications along the coast continue to increase, with Beaufort County residents filing 261 requests in 2001 alone (OCRM, 2001).

Furthermore, the greatest population growth, according to the Beaufort County Planning Department, is in the southern Beaufort County area. The 40% increase in Hilton Head Island's population over the last 10 years has brought an increase in the number of boats using these sensitive watersheds and will continue to increase use of the waterways and boating traffic, resulting in continued conflicts between waterway uses and water quality protection goals.

As documented by the Clean Water Task Force, there is conflict between the public, county officials, and OCRM regarding the environmental protection and use of sensitive waters (Clean Water Task Force, 1997). The county has passed its own dock ordinance and lawsuits have been filed by landowners arguing that the county's dock guidelines are more restrictive than the state law.

According to OCRM, several multiple-dock permits filed during 2001 and 2002 were appealed by individuals, citizens groups, and conservation groups (Robertson, 2001-2002). These include Bull Point Plantation and Berkeley Hall Plantation Dock Master Plans. Local shellfishermen who are maintaining shellfish leases in the May River and Okatie-Colleton

Rivers have objected to single-family and multiple-family docks as they encroach into harvesting areas (Berkeley Hall Dock Permits, 2002). The OCRM dock regulations state that, in areas used for shellfish harvesting, the rights of shellfish lessees and the public will be “considered.” However, the regulations do not clearly establish priorities or grade importance of one group (private dock owners) over another (shellfish lessees). This issue will continue to be a critical factor in OCRM’s review of private dock applications and the potential for permit appeals.

Beaufort County and local municipalities (e.g. Bluffton) have been partially successful in managing the number and extent of private and community docks through planned unit developments (PUD) and Development Agreements. The larger land developers are able to provide for boating access through the use of dry storage marinas and/or community docks. However, smaller development parcels along sensitive waterways must be concerned with the land values of lots with potential dock access in order to make a development project economically viable.

4.3 Recommendations and Management Actions

OCRM and Beaufort County officials and staff should continue a dialogue regarding waterway use conflicts that may impact sensitive natural and cultural resources in the county. There should be better coordination of the OCRM regulatory programs with Beaufort County zoning and permit approvals in reference to better requirements, dock master plan reviews, and water quality protection goals. OCRM should include greater recognition of county and local government environmental protection initiatives during the permit process.

5.0 PATTERNS OF BOATING USE

5.1 Current Conditions

There is a diverse mix of vessels that are seen regularly using the local waters of Beaufort County. As determined through visual observations and interviews with marinas and commercial businesses, these include:

- ✍ Cruising power and sail boats
- ✍ Recreational and charter fishing boats
- ✍ Tour boats and ferries
- ✍ Houseboats
- ✍ Commercial crabbing and shrimping vessels
- ✍ Oyster bateaus, kayaks, canoes, rowboats and rowing skulls
- ✍ Windsurfers, sailboards
- ✍ Parasail charter powerboats
- ✍ Personal watercraft

All types of vessels use portions of the major rivers and the Intracoastal Waterway (ICW) for transit. The larger powerboats, shrimp trawlers, and sailboats use the deeper sounds and Atlantic Ocean while smaller recreational sport fishing, crabbers, runabouts and non-motorized watercraft use the rivers and smaller tidal creeks. The headwaters and smaller tributaries are often used by kayaks, canoes, ecotour companies, and fishermen.

PWC use all of the mentioned waters and portions of the near-shore areas of the Atlantic Ocean, but are concentrated near the resorts and marinas that offer PWC rentals. The majority of the intensive use is observed in waters adjacent to Hilton Head Island, such as Skull Creek, Broad Creek, and Calibogue Sound. PWC use has been on the rise in Beaufort County over the last 10 years. PWC owners use all of the inland waters in Beaufort County. Many of the recent permit applications for single-family docks in Beaufort County have included floating docks to accommodate PWCs.

The most frequent and greatest use of local waters occurs on summer season weekends, holidays and during special events (e.g., the Beaufort Water Festival). Heaviest use is also observed in the widest and deepest waterways: Calibogue Sound, Port Royal Sound, the Beaufort River, and the May River.

Marinas on Hilton Head Island include supervised PWC rental excursions for visiting tourists. A high volume of PWC rental use has been observed during the summer months near Hilton Head Island resorts and marinas. Extensive use is observed in waters of Skull Creek, Broad Creek, Calibogue Sound, and the Beaufort River.

In 2002, a study will be conducted by the National Sea Grant program to evaluate the economic impacts of the ICW to the communities it serves, from Virginia to Florida

Picture 3—Small Cruise Ship

(Murray, 2002). This study will be a valuable tool for further identifying the exact users of the ICW in Beaufort County.

5.2 Future Trends

According to the latest boat registration data in Beaufort County, there were 14,622 registered boaters in the year 2000, or roughly 13% of the county population (SCDNR, 2000).

The population of Beaufort County, especially the southern portion, has experienced an explosive growth during the last 10 to 15 years. Based on projections by Beaufort County Planning Staff, the population will continue to grow at a rate of 4% annually over the next 20 years (Beaufort County Planning Staff, 2000; Beaufort County Comprehensive Plan, 1991).

In Table 5-1, using the county's population growth projections, and assuming conservatively that 10% of this population growth represents new boaters, the county will likely see a doubling of boating use over the next 20 years. This method of prediction of boater growth has been used in local studies (e.g. the Boating Needs Assessments for several coastal counties including the 1993 Beaufort County BNA), and is also accepted as a standard in the marina and boating industry (National Marine Manufacturers Association, 2000).

Table 5-1 Population Projections and Predicted Registered Vessels in Beaufort County, SC

	Registered Boats	Power	Unpowered	Population
2000	14,622	14,085	537	111,093
2005	16,619	16,009	610	126,269
2010	19,205	18,500	705	145,918
2015	22,589	21,759	829	171,628
2020	27,391	26,385	1,005	208,111

Source: National Marine Manufacturers Association, Statistical Data, 2000; South Carolina Department of Natural Resource, Boat Registrations, 2000.

This increase in potential boaters, when combined with the limited potential for new wet slip marinas as previously discussed, will result in further demands on waterfront access facilities. This demand will result in a need for more public access points (boat landings), increased demands on waterfront property with dock access, and expansions of existing facilities.

This may be especially critical in southern Beaufort County and the Bluffton area. This area of the county experienced an average annual growth of more than 7%; a trend that is expected to continue (The U.S. 2000 Census).

To obtain a "snapshot" of boating use in the County, visual counts of boats were conducted from nine boat ramp and marina sites on Saturday morning, May 26, 2001 (Memorial Day Weekend). This Saturday unofficially marks the beginning of the boating season for the County. It should be noted that in areas of Beaufort County, it was an overcast morning, which may have had an effect on the number of boats counted.

Table 5.2 shows not only the diversity of uses, but also frequency of use in the waters surrounding each ramp. The counts were by time, type, and size of vessels. The numbers show that larger bodies of water support more traffic and larger vessels, whereas fewer and smaller vessels were using the smaller bodies of water. The highest boating use was recorded around Hilton Head Island. (See Figure 4 for locations of the counts).

Table 5-2 Boating Use in Beaufort County on May 26, 2001

	Broad Creek	Harbourtown	Pinckney Is.	Sands Beach	Alljoy	Station Ck.	Gray's Hill	Downtown Beaufort	Dolphin Head	Total
Motorized										
15' or less	10	16	16	6	32	25	5	1	18	129
16' to 25'	60	93	27	88	21	24	3	16	60	392
26' or more	23	27	1	21	1	15	0	15	14	117
Non-motorized										
Canoe/kayak	0	0	1	1	4	0	0	0	0	6
Sailboat (<20')	1	0	0	0	0	1	0	0	3	5
Sailboat (>20')	11	13	1	4	0	2	0	3	15	49
PWC's	13	32	7	4	5	0	0	1	0	62
Commercial										
Tugs, barges	0	1	0	0	0	0	0	0	0	1
Trawlers	0	1	0	0	0	0	0	0	1	2
Others	0	12	2	0	0	0	0	0	0	14
Totals	118	195	55	124	63	67	8	36	111	777

Source: Applied Technology and Management, Inc. survey, May 2001.

Consensus among those surveyed indicated that no launching area was being used beyond its capacity. Waterways that were the busiest (Calibogue Sound, Beaufort River, Port Royal Sound at Dolphin Head) are the "highways" to the smaller, and less-used waterways. It should be noted that the combination of Broad Creek and Calibogue Sound in the Hilton Head area accounted for over 300 vessels in a two-hour period. (It is likely that some of those boats were counted several times by either or both surveyors).

In order to clearly establish public access needs, the boat count concept should be expanded and used to a greater extent – possibly during the update to the 1993 Boating Needs Assessment. The scope of this report limited further boat count work.

6.0 WATERWAY USE CONFLICTS

6.1 Introduction

Despite the abundance of navigable water in Beaufort County, government officials, recreational boaters, fishermen, and natural resource agencies have identified conflicts in the use of local waters. A brief scan of articles in Coastal South Carolina and Beaufort County newspapers (Appendix E) demonstrates a new awareness of water use conflicts. Periodic high boat traffic in navigable channels, conflicts between dock owners and commercial fishermen, and concern for protection of water quality and ecologically sensitive areas are issues that are frequently voiced today by concerned citizens, public officials, natural resource agencies, and enforcement staff. Beaufort County will need to manage the growth of boating to ensure safe recreational and commercial use of the waterways, while continuing to protect ecological and fishery resource value of the local waters.

In order to gain a thorough understanding of waterway use conflicts in Beaufort County, extensive interviews were sought with various public and private user groups. Dozens of interviews were conducted with those willing to meet. Following is a listing of the parties whose representatives, both official and unofficial, were interviewed. All users requested that their names not be identified in this report, thus allowing for more candor in their answers.

- ? Staff and/or elected officials from:
 - o Beaufort County Planning and Public Works Departments
 - o Town of Hilton Head Island
 - o Town of Bluffton
 - o Town of Port Royal
 - o City of Beaufort
- ? Commercial Shrimpers, Fishermen, Oystermen, Crabbers
- ? Recreational Boaters and Personal Watercraft Users and Organizations
- ? Commercial Boating Operators: PWC and Kayak, Boat rentals and Charters
- ? Marina Owners and Operators
- ? SCDNR Law Enforcement and Marine Resources staff
- ? SCDHEC-OCRM Planning, Permitting, and Enforcement staff

The questions asked of all interviewees are as follows:

1. Should boating, fishing, PWC use, and commercial uses be restricted by location in the County, due to a) land-side uses, b) navigational issues, and c) water quality or other pollutant issues?
2. Are there waterfront areas in Beaufort County that could/should be developed for the future boating or commercial use?
3. Should Beaufort County's small tidal creeks and headwaters be restricted in use, such as shellfish harvesting and non-motorized water vehicles only?

4. Other than increased signage, educational materials, and more enforcement, how can the boating public be better informed about protecting the future of Beaufort County's fragile waterways?
5. Do you have any other comments on the current conditions of the Beaufort County waterways or the future management of them?

A sampling of public and private opinions is presented in the following comments, taken from interviews conducted in 2001 with the Beaufort County waterway users (common concerns have been combined into single comments).

1. Beaufort County should develop more boat ramp access points in southern part of County to relieve over-crowding that currently exists.
2. Uneducated boaters should be kept off the water.
3. SCDNR should enforce no wake zones surrounding boat launching ramps.
4. Out-of-state commercial harvesters should be kept from depleting local marine resources.
5. SC does not need to enact more legislation to manage boating; more enforcement is needed.
6. Beaufort County needs to protect waters from stormwater pollutants because natural resources are being affected, as in Broad Creek's oyster bed closures.
7. Large vessels should be kept out of small creeks; large boats = large wakes.
8. Information about our waters and SC boating laws should be provided at launching ramps for visitors and those who are unfamiliar with them.
9. Waterway uses should not be restricted by what is on the waterfront; fishing should be allowed wherever one wants to fish.
10. Wake erosion is a problem around Hilton Head, particularly from ferries.
11. Waterways should have restrictions based upon the sensitivity of the areas, i.e. small creek fish and shellfish habitats.
12. Countywide education regarding water quality, the risk of development, and acceptable boating behavior is needed, for both children and adults.
13. Ask everyone what they really want – more development or high quality of life?
14. PWCs need to be more restricted as to the areas they can traverse, and how fast.
15. Waterway trash is becoming an issue, whereas it never had been in the past.
16. Non-motorized vessels should be the only ones allowed in small creeks.
17. New access sites need to consider navigation (waterway width) and environmental issues.
18. Speed should be of utmost concern to everyone on the water – it kills people and degrades habitat.

The opinions expressed by routine users of local waterways could be characterized into several areas as presented in Table 6-1.

Table 6-1 Summary of Recorded Water Use Conflicts

User Conflicts	User Concerns
I. Vessels operating at high speed vs. high traffic areas	Safety and navigation issues
II. Waterfront owners vs. waterway users	Noise, shoreline erosion and wake damage to wetlands and docks
III. All boaters vs. personal watercraft users	Safety issues related to erratic operation, poor control of vessel, little operational education or knowledge of local laws
IV. Narrow waterways vs. vessel activity	Sensitive natural resource areas requiring special oversight and regulation enforcement
V. No wake zones or speed zones vs. uses	Commercial users are sensitive to time spent on the water doing their jobs, e.g., crabbers, charter fishermen
VI. Environmentalists vs. waterfront land ownership and associated development rights	Loss of sensitive natural habitat owned by the whole County; private property rights

Source: Interviews Conducted by Applied Technology and Management, Inc., 2001;

6.2 Natural Resource Management Conflicts

6.2.1 Water Quality, Headwater And Natural Resources

Conflicts exist between proponents of water quality and natural resource protection and recreational boating primarily in areas classified as ORW. As previously discussed, the SCDHEC has instituted environmental protection and no discharge standards to preclude the development of commercial marinas in these waters. Although these sensitive waters are generally off-limits to wet-slip marina development, there is a strong demand for single-family and community docks, and the demand will increase in the future as waterfront property becomes available for development.

Conservationists and environmental interest organizations have raised concern that motorized boats in small tidal areas may have negative impacts on these waters considered to be nursery habitats (The South Carolina Coastal Conservation League, 2001). As an example, propellers on motorized vessels create turbidity and stir up sediments in a waterway, affecting food sources for its inhabitants, impairing clarity of the water, and reducing light needed to generate growth of small photosensitive animals (Scott, 1997). Studies have shown that single-family docks and dispersed berthing areas do not cause acute, adverse impacts on water quality. However, cumulative impacts of docks in sensitive headwater and nursery areas may result in adverse environmental impacts on water quality and ecological production over the long term (Holland, 1996).

OCRM is attempting to manage the rapid requests for dock permits through a dock master planning process. However, individual landowner rights to water access often prevent the agency from making a thorough, cumulative impact evaluation. When reviewing an individual dock permit application, the agency does is not able to adequately consider the cumulative impacts of the proposed dock with others before it; each single-family dock application stands alone.

Beaufort County adopted an ordinance to regulate docks and piers in small tidal creeks in the county. The ordinance requires that waterfront lots have a minimum of two hundred fifty (250) feet of frontage along the water body and that the length of the dock should not exceed three hundred (300) feet in length. A copy of the ordinance is presented in Appendix D.

The OCRM regulation limits dock length to 1,000 feet and the width of the lot to 75 feet of frontage in most waters (OCRM, 1999). As stated in the *Beaufort Gazette*: "The S.C. Department of Health and Environmental Control's Office and Ocean and Coastal Resource Management has announced new dock standards, which will take effect May, 24, according to an agency statement. The standards, which have been in the works for more than two years, address concerns about the proliferation of docks in state waters. Docks now are prohibited in creeks 20 feet wide or less, unless the lot has more than 500 feet of water frontage or in no dock can possibly be built on the opposite side of the creek. No docks will be permitted in creeks less than 10 feet wide, and no boat lifts will be permitted in creeks 20 feet wide or less" (May 14, 2002).

In September 2001, the College of Charleston Institute for Urban Affairs and Public Studies published its "Survey of Coastal Residents' Perceptions of Docks." This telephone interview study indicates a stronger desire among residents of Beaufort County to protect the environment than other SC coastal communities. There was a common desire among all coastal residents to own a dock. The right to have a dock verses the environment is a matter that may never be resolved, but Beaufort County's current conditions as they relate to build-out and future growth predictions are not comparable to the rest of coastal South Carolina. Over one-half of all SC coast line is in Beaufort and Colleton Counties - the most rural of the coastal communities in the state. It is suggested that further analysis of this study should be conducted, focusing on the future of Beaufort County with population growth models as a guide to respondents, through mailings and/or workshops.

6.2.2 Shellfish Harvesting Waters

Water quality standards preclude the development of marinas in waters classified as open for shellfish harvesting. However, the expansion of single-family docks and community docks in shellfish waters has become controversial in Beaufort County.

The primary areas of conflict are in the headwater areas of the Okatie and Colleton Rivers, where shellfish harvesting is permitted on a regular or provisional basis. The OCRM dock regulations state that, in these areas, the rights of shellfish lessees and the public will be "considered." However, the regulations do not clearly establish priorities or grade importance of one group (private dock owners) over another (shellfish lessees).

The controversy is highlighted due to the water quality preservation and restoration goals of the Special Area Management Plan (SAMP) and the desire to preserve and protect the traditional (cultural) uses of local waters (e.g., shellfish harvesting). Single family and multiple dock permits approved by OCRM are under appeal by individuals, citizens associations, and conservation groups. Oyster leaseholders along the Okatie-Colleton Rivers have filed objections to single-family and community docks as they encroach into shellfish harvesting areas (Beasley, 2001; Bailey, 2001).

6.3 Upland Property and Waterway Use Conflicts

6.3.1 Waterfront Property And Boat Use

Conflicts between recreational boaters and waterfront property owners in Beaufort County have been identified. Property owners complain of damage to dock structures and shoreline and marsh erosion as a result of excessive wave action from boat wakes. Conflicts in the Broad and Skull Creeks on Hilton Head have resulted in recent attempts at legislation for further expansion of no wake zones.

As noted throughout the waterway user interviews, all users have concerns about proliferation of docks in Beaufort County both for navigational safety and aesthetic reasons. These concerns are being addressed through the Beaufort Dock Ordinance. Conflicts between dock owners and crabbers are an annual concern of the SC Department of Natural Resources (SCDNR). Crabbers prefer to place crab pots along the deeper portions of the small tidal creeks. This practice can impede safe navigation for other boaters, particularly during low tide. The SCDNR enforcement staff must occasionally remove or relocate crab pots.

Local boaters (e.g. Callawassee Home Owners Association, 2000) have raised concerns regarding navigational safety associated with a series of long docks along small tidal creeks. This conflict has been recorded in Callawassee Creek along the Callawassee Island Development. Similar conflicts have been noted at Spring Island, and adjacent property owners have appealed permits issued by OCRM for multiple community docks (Harness, 2001).

A further study, comparable to the “Survey of Coastal Residents’ Perception of Docks,” could best identify what might be tolerable between waterway users, property owners, and enforcement. One-on-one conflicts could be anticipated and/or addressed early, and all concerned would have standards upon which to rely.

6.3.2 Waterfront Property Rights And Shellfish Harvesting

Recently, there have been objections filed against single-family dock permits by oyster leaseholders in Beaufort County in the Okatie-Colleton Rivers. Shellfish leaseholders complain that too many docks along the cultivated areas open for shellfish harvesting have adverse impacts on the commercial fisherman’s ability to seed and harvest oysters. This issue caught the attention of citizens and conservation groups in Beaufort County who desire to preserve the traditional uses of local waterways.

The issue of clean and harvestable water resources versus impacts from development and urbanization will become more significant in the future as more oyster grounds are closed due to increased growth within Beaufort County watersheds (Holland, 1996).

6.4 Waterway User Conflicts

There are a number of conflicts cited by waterway users in Beaufort County. The conflicts are typically related to the volume of traffic and the type of vessel or activity. Although boating is a year-round activity in Beaufort County and coastal South Carolina, the heaviest use of the waterways occurs between May and August, which includes the tourist visitation

season. Local waters at Hilton Head Island, the City of Beaufort, and Port Royal Sound experience the highest use during the summer months, i.e. May through September. Users of PWC and non-motorized vessels also find themselves in the middle of many conflicts.

6.4.1 Vessel Traffic Issues

Portions of highly used waterways such as Skull Creek, Broad Creek, and the Beaufort and May Rivers, have narrow stretches of navigable channels and are difficult to traverse during periods of high traffic. These waterways are used by a great diversity of vessels that travel at varying speeds. A summer weekend often brings varying types of vessels to the same waterway, e.g., kayaks, fishing boats, and water skiers. Based on interviews with local boaters, they complain of other users' general lack of knowledge of safe boating and "rules of the road."

High boating traffic is typically experienced only during major Spring and Summer holidays and at special events such as the Beaufort Water Festival.

According to Bluffton officials and residents, the main boating issue is safety and noise levels associated with the heavy use of local sandbars during the summer months. This occurs when the tide is low, during the warm seasons, as boaters traditionally meet at the sandbar in the middle of the May and Beaufort Rivers. The Town of Bluffton has purchased a boat for its police department. The town is planning to patrol the May River for excessive speed and noise. There are courtesy and decibel level issues involved in this behavior. Unnecessary wakes and erosion have also been mentioned as concerns.

Concerns also have been reported about boat traffic flow under the Woods Memorial Bridge across the Beaufort River (Intracoastal Waterway) from the City of Beaufort to Lady's Island. The bridge is closed during daily rush hours, which impacts boats transiting the ICW. The conflict is that bridge openings impede car transit and create vehicular traffic in general, while holding boats at a bridge causes dangerous situations with the required maneuvering to keep in one place until the bridge opens.

Commercial fishing vessels, such as charter boats and crabbers, tend to travel fast on local waterways and are sensitive to the time and cost involved in doing their jobs. This speed creates conflicts with recreational boaters between marinas and inlets and in small tidal creeks used by local crabbers. Wakes can be created by high speed if a boat is not "up-on-plane," causing turbidity in the water, as well as shoreline and dock damage.

6.4.2 Personal Watercraft (PWC)

As a traffic issue of concern for the past decade, jet skis are very high profile in the Hilton Head community. Recently, commercial jet ski operations in Broad Creek, Harbour Town, and South Beach, have been taking their customers out into Calibogue Sound, under supervision. Skull Creek operators use Port Royal Sound. These operations all include experienced operators to manage the groups renting their equipment. The good weather and relatively safe waters of the Hilton Head area are very conducive to PWC users; thus, attracting users from outside the community.

The Town of Port Royal reports high noise levels from jet skis at the boat-launching area as well. The City of Beaufort and Hilton Head Island report complaints about high noise levels from jet skis using the Beaufort River that impact local residents and tourists near the

waterfront. The PWC also travel at high speeds with easy maneuverability and are able to stop quickly. Other boaters complain about the lack of enforcement of regulatory speed and navigational control by PWC users in local waters.

6.4.3 Non-Motorized Vessels

There has been significant growth and interest in non-motorized use of local waters in Beaufort County by kayakers, canoers, and eco-tourism businesses. A number of marinas, outfitters, and rental operations have seen business grow in the non-motorized and eco-tourism sectors. According to the Broad Creek Management Plan being prepared by the Town of Hilton Head, non-motorized vessels (mainly kayaks) now make up nearly one-fourth of the boats using Broad Creek (see Appendix F). Conflicts with these vessels occur mainly as a result of high speeds and boat wakes from motorized boats.

Some charter groups utilize the headwaters and smaller tributaries for eco-touring. These vessels originate from local marinas, and have introduced the non-motorized vessel to the primary travel ways to and from marina facilities. The non-motorized vessels are often concerned about a larger boat's wake, and for good reason. The SC Boating Laws require 100' of distance between these vessels.

7.0 RECOMMENDATIONS

7.1 Siting of New Marina and Boat Ramp Facilities

This study includes an inventory of existing water access facilities, extensive interviews with county and municipal staff and diverse waterway users. According to this research, Beaufort County appears to be providing adequate public access facilities to local waters under the current demand.

The BNA developed a strategic approach to providing public access through the year 2010 (Taylor, 1993). The county has been proactive in adhering to the recommendations in the report. The 24 county public launching ramps are generally in good condition or are in the process of being upgraded. The BNA should be updated as soon as possible to address future population growth in the county. Special attention needs to be focused on southern Beaufort County and the Bluffton area due to the explosive growth in this area. It is important to gain a full understanding of growth projection and long range needs in this area.

Regarding new wet-slip marinas, OCRM regulations (revised version, May 1999 – see Appendix C) require that they be sized and developed with minimal adverse impacts and minimal dredging and upland filling. New marinas, or expansions of existing marinas, are generally not approved in shellfish harvesting waters where they will result in closings of any shellfish grounds. According to OCRM staff, dry storage facilities and expansion of existing marinas are preferable to developing new facilities in ecologically sensitive areas (Chinnis, 2001). The consensus of those interviewed, including both government staff and waterway users, is that existing facilities need to be maintained and/or expanded, as opposed to new facilities being created. The consensus of government staff was that it is unlikely that there are locations for new facilities that would not have some negative impact on current upland uses and meet the environmental requirements and guidelines of the state.

Given the inventory from Section 3, the existing SCDHEC-OCRM regulations, the extensive interviews with the municipalities, and reviews with the planning staffs of these municipalities, following are recommendations for siting and development of marina and boat ramp facilities in the county.

Town of Hilton Head Island

Based on SC State requirements for permitting, and recent scientific analysis of environmental impacts performed by the town, the Town of Hilton Head Island has designated several areas as water-oriented zoning districts outside of planned unit developments (Town of Hilton Head, 2002). Each waterfront development on Hilton Head Island has the ability to consider marine-oriented uses such as marinas, commercial operations, docks, etc. There are no commercial waterfront facilities in the planning stage at this time on Hilton Head Island. There is a proposed public boat ramp on Broad Creek in the planning and permitting stages as part of Beaufort County's boat ramp program.

There are 15 locations identified as marina and/or waterfront access sites on Hilton Head Island (Figure 4). There are also four boat-launching sites, with one more in the development stage (SCDNR, 2001).

According to the Town Planning Staff, the current marinas and boat-launching ramps on Hilton Head Island are currently adequate to provide service to both residents and tourists

(Town of Hilton Head, 2000). No marinas on Hilton Head Island are 100% full year-round, and launching ramps are only crowded during summer weekend holidays and shrimp baiting season. Hilton Head Island is almost at full build-out, and with a new boat ramp planned for Broad Creek trailerable boating access needs will be adequate for the next eight to ten years (Taylor, 1993).

Although marinas are not always full on Hilton Head Island, there is a concern for future ability to accommodate the larger boats in Beaufort County.

A recent article in The Island Packet indicated that some marinas on Hilton Head Island are full, such as Windmill Harbor and Palmetto Bay Marina (The Island Packet, 2001). There is a lack of permanent wet slips for the boaters with larger vessels who need a full service marina to meet their needs. There is a large marina facility planned for Daufuskie Island (400 slips), but this marina will likely be developed over a long period of time and in several phases.

Town of Bluffton

There are no plans for wet slip marinas in the near future and it is doubtful that any site could meet the environmental standards for the development of a marina (private or commercial). The two rivers surrounding Bluffton (May River and New River) are both ORWs, which preclude new marina development.

Development agreements between the town and local developers include community docks, a possible launching ramp, and a dry storage marina at Palmetto Bluff. Plans for development of the Bluffton Oyster Company property include improvements of the boat launching ramp and parking facilities. The Town should continue to work closely with developers in the master planning and approval process in an effort to establish community docks, boat ramps, and dry storage as a means of creating public access.

Town of Port Royal

There is one new wet slip marina in the planning stages at Port Royal, located at the SC State Ports Authority site on Battery Creek. This site is being investigated for use as a specialized wet slip marina for mega yacht vessels (85+ feet).

A second marina, a drystack storage facility at the SPA property has received DHEC 401 certification, OCRM and Corps permits, and is keeping in line with OCRM's desire to encourage meeting demand with dry storage rather than additional wet slips. Existing boat ramp facilities, an existing marina, and the planned drystack marina development should accommodate boating access needs in the Port Royal area (Perry, 2000).

City of Beaufort

The municipal marina (Downtown Marina) is 100% occupied, and parking capacity in the downtown area prevents further expansion of the facility. The boat launching ramp at the Downtown Marina also poses a difficult situation since parking is so restrictive for vehicle and trailer parking. The City of Beaufort has initiated planning on a waterfront development master plan. It is recommended that the city include traffic studies as part of the Chambers Waterfront Park Redevelopment Plan and address the needs for additional berthing and trailerable boating access.

There has been discussion in the community about a permitted mooring field adjacent to the municipal marina as well as expansion of the “day dock.” There appears to be a strong need in this area for additional mooring capacity and public access (City of Beaufort, 2000).

7.2 Future Demand and Water Access Facility Needs

Although the county and municipalities are keeping pace with the current demands for boating access, the growth in boating demand will likely double over the next 20 years according to county population projections (Beaufort County Planning Department, 2000).

The future population growth will result in increased demand for public access to local waters especially in southern Beaufort County between the Highway 278 Hilton Head Island Bridge and the region south of the Broad River. The peak demand occurs during the spring and summer season. Improvements to existing public boat ramps and planning of new facilities should include a thorough analysis of future parking requirements.

Appropriate planning for future facilities is especially important in this area due to the high quality of local waters and the desire to preserve existing uses such as shellfish harvesting.

Beaufort County officials, municipal leaders and land developers should work in close coordination to address the future boating access needs in Beaufort County.

7.3 Siting of Community Docks and Single-family Docks

A recent study completed by the College of Charleston titled, “Survey of Coastal Residents’ Perception of Docks,” shows that there is some support for local regulation of dock structures among residents of coastal South Carolina (SCDHEC-OCRM, 2001). However, Beaufort County residents are particularly concerned about the proliferation of docks along its waterways when compared to other coastal areas of the state. Table 7-1, excerpted from the College’s study, shows that nearly half of the County is open to complete prohibition of new private docks:

Table 7-1

Should property owners be allowed to build docks?

	Yes	No	DK
Beaufort County	54.8%	45.2%	0.0%
Berkeley County	88.5%	9.8%	0.0%
Charleston County	65.7%	27.3%	3.5%
Colleton County	88.9%	5.6%	0.0%
Dorchester County	72.1%	14.0%	7.0%
Georgetown County	70.0%	15.0%	15.0%
Horry County	80.3%	16.4%	3.3%
Jasper County	80.0%	20.0%	0.0%

(Chi-Square=45.899, P-Value=.0046)

Also according to the survey, well over half of the county indicated that dock length should be restricted to less than that approved by OCRM (<1,000 feet):

Table 7-2

Restrict docks to <1000 feet?

	Yes	No	DK	NA	N
Beaufort	54.8%	29.0%	12.9%	3.2%	31
Berkeley	34.4%	47.5%	11.5%	6.6%	61
Charleston	37.3%	45.1%	12.7%	4.9%	142
Colleton	27.8%	55.6%	16.7%	0.0%	18
Dorchester	32.6%	46.5%	16.3%	0.0%	43
Georgetown	25.0%	45.0%	15.0%	15.0%	20
Horry	47.5%	31.1%	16.4%	4.9%	61
Jasper	60.0%	40.0%	0.0%	0.0%	5

(Chi-Square=34.975, P-Value=.0688)

The Beaufort County dock ordinance was enacted to protect smaller tidal creeks (Beaufort County, 2000). The ordinance addresses dock structures as potentially impacting common resources, such as nursery habitat, fishing habitat, scenic vistas, access to creeks, and navigational safety. Residents of Beaufort County desire to protect sensitive and fragile areas susceptible to development through addressing issues of access, resources, and public benefit. All owners have the right to request a dock permit for waterfront property; at this time, only the length of shore frontage and size of the creek will determine whether or not it is approved.

It is highly recommended that county staff and officials review the issues of siting and development of public boating access facilities during the 2002 reviews of the Beaufort County Comprehensive Plan.

7.4 Natural Resource Management

7.4.1 Shellfish And Nursery Areas

ORW, shellfish nursery areas, and headwater nursery areas are very important to residents of Beaufort County. This has been fully demonstrated by the formation of the Clean Water Task Force and the Special Area Management Plan (SAMP). The Beaufort County dock ordinance also demonstrates the desire to provide special protection to small tidal creeks.

As has been noted through this study's interviews, OCRM should attempt to strengthen current regulations with regard to expansion of docking facilities in environmentally sensitive areas to be more in line with regional and local desires for environmental protection and preservation of traditional uses of local waterways, such as shellfish cultivation and harvesting. In the last three years, many appeals have been placed upon permitted docks as well as a marina site, based upon the community's concern for natural resource protection. There has been an increase in leased shellfish bed closures in northern Beaufort County and Broad Creek, and restrictions placed on many others. Many county residents believe that boaters pollute, and docks impact fisheries habitat. It is recommended that environmental studies are needed to determine why the bed closures are increasing and what measures might improve this situation.

7.4.2 No Discharge Zones

A No Discharge Zone (NDZ) is “an area of a waterbody or an entire waterbody into which the discharge of sewage (whether treated or untreated) from all vessels is completely prohibited” (Environmental Protection Agency, 1993). These areas are designated by the Environmental Protection Agency depending on the usage of the waterbody, ranging from intensive recreational activities to drinking water sources, aquatic sanctuaries, and nursery areas.

Currently, it is illegal to discharge any *untreated* vessel sewage in the navigable waters of South Carolina. (Additionally, state law prohibits houseboats from discharging all sewage – treated or untreated - into freshwaters of the state). Congress passed the Clean Vessel Act in 1992 to help reduce pollution from vessel sewage discharge.

Due to the closing of all shellfish beds in the mid 1990's and the efforts of the Clean Water Task Force in Beaufort County, Broad Creek is designated as a NDZ in Beaufort County.

According to EPA, poorly flushed tidal creeks that host substantial boating activity are particularly sensitive to the cumulative effect of a number of boats releasing untreated, or poorly treated human waste. Studies conducted in Puget Sound, Long Island, Narragansett Bay, North Carolina and Chesapeake Bay have shown that boats can be a significant source of fecal coliform bacteria in areas with high boat densities and low hydraulic flushing (Environmental Protection Agency, 1993).

Interviews with municipal planning staffs, members of the Clean Water Task Force, and marina operators support the establishment of NDZ for ORW in Beaufort County. These waters include the New River, May River, Colleton River, Okatie River, Combanee River, Coosaw River, and Whale Branch River. This is consistent with the goals and objective of the Special Area Management Plan. Portions of these rivers (particularly headwater areas) have reduced flushing, and are susceptible to degradation of water quality. Many of these waters also support shellfish resources. The greatest value in nominating these waters as NDZ is to change boaters' attitude toward these waterways and to provide an overall public awareness of the importance of water quality protection (Clean Water Task Force, 1997).

It is recommended that Beaufort County pursue nomination of these rivers for NDZ designation through local sponsorship and legislative delegation action. Upon nomination of NDZ status by OCRM, the Beaufort County legislative delegation would be the local sponsor of this effort. In order for the area to be designated as an NDZ, the SCDHEC Bureau of Water must determine whether there are an adequate number of pump-out facilities available in the proposed area. Following DHEC's determination that there are adequate pump-out facilities in the area, the Governor's office can submit an application. The nomination process can be facilitated by expansion of the OCRM sewage pump-out program, which is highlighted in Section 7.3.3 of this report.

Figure 6 - no-discharge map

7.4.3 Sewage Pump-Out Plans

Background

As a result of the Clean Vessel Act of 1992, funds were made available to states through the U.S. Fish and Wildlife Service and Sportfish Restoration Act to provide pump-out stations for receipt of marine sewage from vessels. The State of South Carolina has participated in this program since its inception, and funding is currently available through SCDHEC-OCRM.

Table 7-3 provides a status of the Clean Vessel Act Pump-out Grant Program for the State of South Carolina.

Table 7-3 Clean Vessel Act Pump-out Grant Information

Grant #	Purpose	Used for	Original Budget	Funds Remaining
V-2	New installations	12 pump-out installations	\$255,400	\$0
V-3	Renovations	17 pump-out renovations / 3 portable units	\$235,500	\$93,000
V-5	Boat Purchases	5 pump-out boats / 2 portable units	\$198,000	\$26,000
V-8	Boats/Operation & Maintenance	3 boats / O&M funds	\$303,000	\$76,000
V-10	Boats/Operation & Maintenance		\$449, 962	\$388,000

Source: SCDHEC-OCRM Beaufort Office, 2001

To qualify for the program, the marina must obtain prior approval for the pump-out system from OCRM, SCDHEC Bureau of Water, and from the local sewer authority. The pump-out system must be designed specifically for the facility, meet SCDHEC standards for marine sewage pump-out systems, and be certified by a professional engineer. A "Notification of Construction" form must be submitted to SCDHEC at the beginning of the project, and a "Notification of Completion" form is submitted once the system is operational. Both of these forms are included in Appendix G.

While the grant information in Table 7-3 indicates that funds for new systems are limited, there is ample funding for renovations or upgrades to existing systems, pump-out boats, and operations and maintenance manuals. The grant program has traditionally been renewed each year and allocations to the different "Purpose" designations may be adjusted depending on public need.

Current Conditions

There are 17 marinas in Beaufort County, 12 of which have pump-out facilities (Table 3-2). Marinas in Beaufort County that have not participated in the SC Pump-out Program to date include Fripp Island Marina, Battery Creek Marina, Hilton Head Boathouse, Moss Creek Marina, and Broad Creek Marina (see Figure 4).

In order to encourage the installation and use of more pump-out stations and pump-out boats at marina facilities, an active awareness campaign has been established for both marina facilities and the general public. SCDNR conducts this campaign through Clean Vessel Act funding. Joint efforts between OCRM and SCDNR are underway to increase public awareness regarding sewage disposal. Standardized signs have been posted at facilities with pump-out stations to help boaters recognize which marinas are equipped with these services. Brochures, posters and boating guides have been printed to provide information on locations of pump-out facilities. SCNDR officials attend statewide boat shows, expositions, and other outreach events to educate the public about the hazardous effects sewage discharge has on water quality. Interpretive, interactive educational exhibits are displayed at these outreach events, reaching over 100,000 statewide each year. In addition, information and brochures are provided to over 50 marinas, tackle shops, and boating related businesses along the coast, and at informational kiosks at boat landings and marinas. Promotional items including decals, water bottles, and the like are distributed to individuals using pump-out facilities as a positive reinforcement for their efforts.

Pump-out Expansion Plan

All new marina permits, as well as any modifications to existing marinas, are being required by OCRM to install marine pump-outs. Additionally, boaters are evermore associating pump-outs with modernized, environmentally sensitive marinas. The pump-outs are perceived as not only promoting cleaner marinas, but also more convenient and service-oriented marinas. Marinas should realize that, given these conditions, installation of a pump-out system has almost become a necessity. With the grant program, accomplishing this upgrade has never been easier. In this vein, many states have contracted with an industry association or trade group to image and promote the pump-out program as a positive business move. This can help to provide a less regulatory, more financially based view of the program to the typical marina.

Beaufort County should focus on encouraging additional pump-out boats in Beaufort County. Marina facilities such as Windmill Harbor and Dataw are good candidates for pump-out boats. The county should actively recruit pump-out boats for these facilities through the community association and/or yacht club. This can be accomplished through the continued educational efforts of OCRM and SCDNR. OCRM should actively recruit government and private sectors to sponsor pump-out boats for local and transient vessel use.

An educational seminar for municipalities and the general public can be sponsored through Clean Vessel funding. The process of applying for a pump-out boat, in addition to the requirements for operation, can be explained. Success stories can be used (e.g. a town that sponsors a pump-out boat in North Myrtle Beach) to highlight the usefulness of town cooperation (including fire protection use, boating laws enforcement, etc.) and potential profitability to the boat owner.

The SCDHEC-OCRM Pump-out Expansion Program should be closely coordinated with the Beaufort County delegation efforts to nominate additional waters as NDZs (see Section 7.3.2) and to provide additional focus on the need for more sewage pump-out facilities. The five marinas lacking a pump-out system should be actively urged by the county to help complete the pump-out expansion plan.

Picture 4—Pump-Out Boat

Figure7

7.5 No Wake Zones And Waterway Use Restrictions

7.5.1 Background

In 1996, a report funded by the Aquatic Resources Trust Fund, direction by the National Water Safety Congress, titled, "A Guide for Multiple Use Waterway Management," stated, "The increases in recreational use of public waterways, the creation of new water-oriented recreational products, and technological changes in watercraft are changing the ways in which people use waterways. Speed, mobility, human behavior, human error, lack of boating education/information, equipment failure, and conflicting uses can sometimes cause accidents and fatalities."

After numerous interviews with boaters in Beaufort County, it was concluded that control of speed may be one of the most effective means of addressing conflicts between property owners and boaters in local waters (See Appendix B, Interviews). Historically, this community has tried to manage speed issues through designated No Wake Zones (or idle speed zones). Twenty-two No Wake Zone areas have been designated in Beaufort County to date (see Figure 8).

As stated in the comprehensive guide to SC boating, "The Complete Guide to Coastal Boating in South Carolina," produced in 2001, there are genuine concerns for protecting South Carolina's tidal creeks and estuaries. Concerns include: boat wakes causing erosion, safety concerns in narrow water bodies with boat traffic, increased turbidity affecting nursery habitat of fish, shrimp, and crabs, and reduced dissolved oxygen affecting all fish and shellfish. This guide was produced through the cooperation of Clemson University Extension, Coastal Conservation Association, SC Marine Association, SC Coastal Conservation League, SCDHEC/OCRM, SC State Ports Authority, and the US Coast Guard Auxiliary. These concerns involve the total coastal community - federal, state, local, public, and private entities working on behalf of the whole concern of waterway management.

Stakeholder interviews indicate that many boaters feel that they are victims of these zones, whereas waterfront residents and businesses would prefer more. Another comment and/or solution to No Wake Zones was to eliminate them completely and provide more enforcement of current SC boating laws.

Figure8

According to Capt. Glenn Ward, SCDNR Law Enforcement, SCDNR receives roughly 75-100 requests for the establishment of No Wake Zones annually.

The process for establishing no wake zones currently is as follows:

A request is made to SCDNR Enforcement Division for the establishment of a No Wake Zone. Anyone has the ability to make such a request. The request must be made in writing and include some type of map depicting the area in review.

A SCDNR officer assesses the area of concern to determine whether or not there are *safety* issues. If possible, the officer will attempt to meet with the person requesting the zone, and discuss the reasons behind their application. Officers try to visit the site within 30 days of receiving the request.

The SCDNR has not issued written criteria for No Wake Zones fearing the public will utilize DNR wording in favor of their requests. When assessing applications, a majority of requests are based upon erosion problems. SCDNR will only enact a No Wake Zone for safety purposes (Ward, 2001).

At times, No Wake Zones are designated by legislation, not the Department of Natural Resources. These designations have been thought by the community to lead to enforcement problems. This is the case in Broad Creek where there are two different fine amounts in adjacent zones.

7.5.2 Recommendations And Implementation

There are a number of ways of managing speed in local waters that include:

- ✍ No Wake Zones
- ✍ Horsepower Restrictions
- ✍ Speed Zones
- ✍ Personal Watercraft Zones
- ✍ Sensitive Area Restrictions
- ✍ Special Area Legislation

A number of states and localities have used these methods with varying success (see Appendix H). Many of these approaches are new; therefore, long-term success is unproven.

Relatively speaking, Beaufort County does not experience the high-level boat traffic faced by other coastal counties (e.g., Charleston County) in South Carolina. Private and municipal marinas and county boat-launching ramps have generally kept pace with the growing demand. The presence of ORW and the high value of waterfront property have restricted the growth of boating in a number of ecologically sensitive areas.

No Wake Zones are potentially the best means of controlling speed and safe boating in local waters. However, No Wake Zones (or idle speed) are only effective based on effective boater education, training, and enforcement. Table 7-4 presents a summary of user concerns and recommendations for solutions as expressed by user groups interviewed in Beaufort County. Note that education and additional enforcement are perceived to be the best means of minimizing user conflicts and promoting safety.

Table 7-4 User Concerns and Means of Resolution

User group comments on other users:	Excessive speed	Lack of education	Need for more enforcement	Need for more regulations
Marina operators		X		
Fishermen		X		
Watermen		X		
Oystermen	X	X	X	
Kayakers	X	X	X	
Other boaters	X	X		
Municipalities	X	X	X	
County gov't	X	X	X	

Source: Applied Technology and Management, Inc., Interviews of Boaters in Beaufort County, 2001

The SCDNR gets many requests for No Wake Zones through the year, primarily from property owners who own docks or experience shoreline erosion. These requests usually do not result in establishment of No Wake Zones.

- ? Based on the extensive interviews with public officials, government staff, and local boaters, it is not recommended to expand No Wake Zones in Beaufort County unless there are supporting studies (i.e. Broad Creek Management Plan) and public support by local municipalities and/or county government.

The Town of Hilton Head Island and the Town of Bluffton are considering Speed Control or No Wake Zones for Broad Creek and the May River, respectively.

- ? The recently published Broad Creek Management Plan recommends expanding No Wake Zones to include the main channel of Broad Creek between the Long Cove community docks and the Broad Creek Marina. The Broad Creek Management Plan also recommends increasing enforcement of existing No Wake Zones (Broad Creek Management Plan, 2002).
- ? The Town of Bluffton began a dialogue to assess speed control along the May River and discussed a goal-setting program for 2002 at a recent planning workshop (Bluffton Planning and Goals Workshop, 2002).
- ? It is highly recommended to increase boater education in Beaufort County through coordinated efforts by the SCDNR, county and municipal recreational and law enforcement departments, SC Sea Grant Advisory Programs, and local citizen groups, such as Power Squadron and U. S. Coast Guard Auxiliary.

- ? It is highly recommended that waterway enforcement efforts be increased through cooperative agreements between SCDNR and the Beaufort County Sheriffs Department. At a minimum, the Beaufort County Sheriff Department should seek additional annual funding to provide an additional enforcement vessel in Southern Beaufort County. The Broad Creek Management Plan recommends expansion of No Wake Zones and additional efforts to enforce existing No Wake Zones in local waters of Hilton Head Island.
- ? The Beaufort County Sheriff Department should seek additional funding support from the Town of Hilton Head Island to step up enforcement efforts in the local waters adjacent to the island.
- ? In addition, enforcement of No Wake Zones should be increased during the high use season (May through August).

7.6 Post Hurricane/Disaster Plan

A major hurricane, such as Hugo or Andrew, has serious impacts on marinas, boat launching areas, and private docking facilities. Boats are often scattered by high winds and waves. The recovery of boats and the maintenance of access to navigable water is important during initial clean up and recovery.

The Beaufort County Post Hurricane and Disaster Plan should include an element to cover post hurricane storm damage assessments and recovery actions at public boating access facilities (Beaufort County Emergency Management Department, 2001). The plan should include standardized damage assessments, maintenance of navigation, and provision of temporary access during post hurricane recovery period. The plan should also include a boater education element. The post-hurricane action plan should become an element of the 2002 Beaufort County Comprehensive Plan Update.

7.7 Summary of Recommendations

The following section summarizes recommendations presented in this study

- ? The best alternative to meet the long-term future demand for marina wet slips and public access boat ramps includes redevelopment and/or expansion of existing facilities. State and local government regulators should also encourage the development of new drystack storage facilities, which have less impact on the environment.
- ? The Beaufort County Engineering and Public Works Department should update the Boating Needs Assessment (prepared in 1993) during the year 2002-2003 and include a needs projection to 2020.
- ? The Boating Needs Assessment should be expanded to include detailed identification of areas for additional public boating access points and include a more detailed assessment to determine long-term capacity and future expansion of facilities. The boat count surveys should be expanded and used to a greater extent in the revised plan. Municipalities should provide input to the BNA update.
- ? The Town of Bluffton should continue to work closely with developers in the master planning and approval process in an effort to establish community docks, dry storage facilities, and boat ramps as a means to provide public access.
- ? It is recommended that the City of Beaufort provide a Waterway Use study as part of the Chamber Waterfront Redevelopment Program, and additionally address the needs for berthing trailerable boat access, mooring capacity and public access.
- ? OCRM and Beaufort County officials and staff should continue a dialogue regarding waterway use conflicts that may impact sensitive, natural and cultural resources in the county.
- ? OCRM should attempt to strengthen current regulations with regard to expansion of docking facilities in environmentally sensitive areas to be more in line with regional and local desires for environmental preservation of traditional uses of local waterways, such as shellfish cultivation and harvesting.
- ? It is recommended that environmental studies are needed to determine why shellfish bed closures are increasing and what measures might improve this situation. These studies should attempt to comment on the impact of boating on shellfish resources.
- ? It is recommended that county officials and staff review issues regarding siting and development of boating access facilities during the, 2002 Review of the Beaufort County Comprehensive Plan.

- ? Beaufort County should strongly consider a recommendation of this study that the New River, May River, Colleton River, Okatie River, Combanee River, Coosaw and Whale Branch be nominated for No Discharge Zones.
- ? Beaufort County should focus on encouraging pump-out boats in Beaufort County.
- ? Marinas should actively recruit pump-out boats for these facilities through the community associations and/or yacht clubs.
- ? The SCDHEC-OCRM pump-out expansion plan should be closely coordinated with the Beaufort County Delegation to nominate additional waters as No Discharge Zones.
- ? OCRM should actively recruit government and private sectors to sponsor pump-out boats for local and transient vessel use.
- ? An educational seminar on the environmental impacts of sewage disposal for municipalities and the general public should be sponsored through Clean Vessel funding.
- ? It is highly recommended to increase boater education in Beaufort County through coordinated efforts by SCDNR, county and municipal recreational law enforcement departments, South Carolina Sea Grant Advisory Programs and local citizens groups such as Power Squadron and Coast Guard Auxiliary.
- ? There should be increased communication between OCRM and Beaufort County planning department during the permitting of wetland use and marine structures (i.e., docks, piers, and boat ramps).
- ? Beaufort County officials and staff, municipal leaders, and land developers should work in close coordination to assist in addressing future public boating access needs.
- ? It is recommended that enforcement efforts be increased in Beaufort County by a cooperative agreement between SCDNR and the Beaufort County Sheriff's Department.
- ? Enforcement of No Wake Zones should be increased during high use season (May – August).
- ? It is recommended that the Beaufort County Sheriff's Department should seek additional funding support from the Town of Hilton Head to step up enforcement efforts in the local waters adjacent to the island.
- ? The Beaufort County Sheriff's Department should seek some additional funding support during the high use season.

- ? The Beaufort County Post Hurricane and Disaster Plan should include an element to cover post hurricane storm damage assessments and recovery actions at public boating access facilities.
- ? Due to waterfront property and waterway use conflicts, a further study, comparable to the "Survey of Coastal Residents' Perception of Docks," could best identify what might be tolerable between waterway users, property owners, and enforcement in Beaufort County. One-on-one conflicts could be anticipated and/or addressed early, and all concerned would have standards upon which to rely.
- ? No Wake Zones in Beaufort County should only be expanded based on supporting studies and public support by local municipalities and county government (i.e., Broad Creek Management Plan).
- ? The Town of Bluffton should continue a dialogue to assess speed control along May River as discussed during a goal setting workshop in early 2002.
- ? A recommendation of this SAMP is the formation of the Beaufort County Waterways Commission (stakeholder group) with the mission to facilitate and implement management of the waterways through consensus building across the user spectrum.

8.0 IMPLEMENTATIONS

8.1 Background

A review of boating management and resource management implementation strategies used in various states was conducted.

The Hampton Roads Virginia Planning District Commission used a stakeholders approach that included representation from state and local agencies, regional interest groups, such as Virginia Coastal Program, Department of Environmental Quality, U.S. Coast Guard Auxiliary, Department of Coastal and Inland Fisheries, Virginia Marine Resources Commission, Hampton Roads Recreational Boating Coalition and a number of interested parties and organizations.

The program included an initial identification of issues and addressed issues by means of recommendations for educational awareness of natural resources, and waterway rules and additional enforcement of existing regulations.

Although increased public education and awareness of regulations was the preferred alternative, the provision of supplemental regulatory measures were also needed to reduce certain waterway conflicts (Virginia Department of Environmental Quality, 1998).

The Lower Colorado River Authority (LCRA) uses a stakeholder group committee and staff to identify issues and make recommendation to the LCRA board for rule making.

The state of Ohio utilizes the commission, Waterway Safety Council, to advise the State divisions of watercraft and the Director of Natural Resource for provision of public access to waters, methods of coordination for harbor projects, and advise and recommend actions concerning recreational boating operations and programs and rulemaking (Waterways Safety Council of Ohio, 2000).

The state of Connecticut uses a Boating Advisory Council to assist in improving communications between the boating public and the conservation and preservation divisions of the Department of Environmental Protection and resolution of problems in connection with Connecticut's boating related land and water resources.

The Boating Advisory Council is made up of ten individuals, and utilizes a number of committees and stakeholder groups to identify issues and develops boating management recommendations such as increased education, increased enforcement and regulation (Connecticut Department of Environmental Protection, 2001).

8.2 Beaufort County Waterway Advisory Committee

The Beaufort County Boating Management study determined that there were numerous stakeholders with an interest in safety and environmental management of local waters and access points. Although much of the concern was related to controlling speed, boater education, and increased enforcement, there were a number of issues specific to the type of user.

A major recommendation of the Beaufort County Special Area Management Plan (SAMP) Boating Management Study is the formation of the *Beaufort County Waterway Advisory*

Committee (stakeholder group) with the mission to review and implement the recommendations presented in this report. This mission would be accomplished by consensus building to promote user compliance and community support. As the number of boaters increases and access issues arise, this group can review current boating Safety Laws as they relate to Beaufort County users. Additionally, the commission can act as liaison between the citizen groups and work towards coordinating their efforts. The political aspects of agency and government implementation make a commission the most viable method of implementation.

The committee would be made up of representation from municipalities, waterway users, and regulatory agencies involved in waterway management.

9.0 REVENUE SOURCES

9.1 Private and Public Grants for Plan Implementation

There are a number of private trusts that support government programs to protect the environment. Grant proposal requirements vary and generally consist of the following items: a program description, budget, timeline, and a percent match by the applying organization. There has been a trend towards funding programs that look for participation in both the private and public sectors, as well as trying to conserve areas not yet heavily impacted or distressed.

FOUNDATION NAME	AREA OF INTEREST	WEB SITE	PHONE NUMBER
Mary Flagler Cary Charitable Trust	Environment/Conservation (priority funding to SC programs)	www.carytrust.org	(212) 953-7700
Project Aware Foundation	Citizen Outreach Programs	www.padi.com/aware/	
Gaylord & Dorothy Donnelley Foundation	Environment/ / Conservation pertaining to watershed integrity	www.gddf.org	(312) 977-2700
Jessie Smith Noyes Foundation	Sustainable Communities	www.noyes.org	(212) 684-6577
The Ittleson Foundation	Environment	www.ittlesonfoundation.org	
Turner Foundation	Aquatic Environment	www.turnerfoundation.org	(404) 681-9900
Surdna Foundation	Environment – Multi-sector approaches	www.surdna.org	
Pew Trusts	Conservation of Marine Resources	www.pewtrusts.com	
Merck Family Fund	Protecting the Natural Environment (wetlands of SC)	www.merckff.org	617 696-3580

Additionally, funds are made available to state governments through the Environmental Protection Agency and the United State Fish and Wildlife Service. Application deadlines vary between programs. For up-to-date federal grant listings, a search should be conducted through the USDA site, <http://ocd.usda.gov/nofa.htm>. Some examples are listed below.

AGENCY	PROGRAM	FUNDING AMOUNT	PROJECT SUPPORTED
EPA	Water Quality Cooperative Agreement	\$25,000 to \$150,000	The prevention, reduction, and/or elimination of water pollution
USFWS	Wetlands Conservation Act	\$51,000 to \$1,000,000	Acquisition, restoration, or protection of wetlands
EPA	National Environmental Achievement Track		Implementation of Environmental Management Systems
EPA	Environmental Education Grants	\$250,000	Environmental Education

Of these listed, the most practical in regards to the SAMP are as follows:

Mary Flagler Cary Charitable Trust – Their efforts are specifically geared towards the Coastal Focus Areas in the Low Country of South Carolina. It should be noted that they generally support local action groups and regional and national conservation organizations that work with them to provide technical assistance in science, economics and law. A joint effort through a private organization and OCRM would be the best way to apply. Past grants funded have ranged from less than \$10,000 to \$500,000.

Turner Foundation – Their objective is to protect rivers, lakes, wetlands, aquifers, oceans and other water systems from contamination, degradation, and other abuses. South Carolina is listed as one of their areas of focus. Past grants funded have ranged from \$10,000 to \$135,000.

EPA Environmental Education Grants – Funds programs that increases public awareness and knowledge about environmental issues and provides the skills to make informed decisions and take responsible actions. It should be noted that this would not fund programs that only disseminate information. This would be ideal for a boating environmental education program that educates the public on the possible causes of marine pollution while boating and how to make educated decisions regarding their actions on the water. Grants funded are generally in the range of \$25,000.

9.2 Alternative Sources of Funding

It has been common practice in today's society to enact user fees to generate funds. While mainly used for national park access, this has recently shifted to include water-based activities. Some possibilities include:

- ✍ Boat ramp usage fees
- ✍ Adjusted SCDNR fees
- ✍ Adjusted DHEC/OCRM fees

Submerged land leases

Submerged Land Leases

The State of South Carolina has initiated some discussion regarding the need for submerged land leases, as a revenue source to assist in managing waters of the state. Submerged land lease programs fall under the principle of “The Public Trust Doctrine.”

This principle states that all navigable waters in the United States are held in “trust” by the government, on behalf of its citizens. It is the government’s responsibility to manage our waters for us. There is no legislation in South Carolina that supports this doctrine; though it is referred to in all OCRM permit documents as a possible future tax or fee for use of state waters. SC state legislation supporting submerged land leases, a tax or fee for use of waters over submerged lands that are removed from public use, could provide a revenue source for financing new or improved public recreational facilities, as well as enforcement of regulations affecting waterway management (SCDHEC-OCRM, 1995).

APPENDICES

Appendix A—References

Appendix B—Municipality Interviews

Appendix C—OCRM Marina Regulations

Appendix D— Beaufort County Dock Ordinance

Appendix E—Articles

Appendix F—Draft Broad Creek Management Plan

Appendix G—Sewer Pump-Out Grant Applications

Appendix H—Personal Watercraft Regulation Examples

Appendix I—Mapping Database

Appendix A – References

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Appendix B – Municipality Interviews

MUNICIPALITY INTERVIEWS

TOWN OF HILTON HEAD ISLAND

Karen Cullen, Long-Range Planner
Jill Foster, Manager of Long-Range Planning

1. Local considerations

As part of future waterfront planning, the Town of Hilton Head has designated several areas as water-oriented zoning districts in areas; these are not within Planned Unit Developments. Each waterfront PUD also has the ability to consider marine-oriented uses such as marinas, commercial marine operations, docks, etc. There are no waterfront facilities in planning at this time by the Town. There is a proposed boat-launching ramp for Broad Creek, as one of the Beaufort County public facilities. Traditional waterway facilities are encouraged, including ferry embarkations. Moorings do exist in Broad Creek, and are not under the control of a marina or other entity. This is not currently a problem. The Town of Hilton Head does not have a dock ordinance, but may consider the one recently enacted by Beaufort County. Planning staff for the Town is recommending community docks for new construction on Broad Creek.

2. Impact of jet skis and all motorized boat traffic

In addition to this study of boating management for Beaufort County in general, there is a parallel study being done of Broad Creek. This study will identify the sensitivity of the Creek as a headwater, nursery to aquatic life, and a recreational treasure for the community.

As a traffic issue of concern for the past decade, jet skis are very high profile in the Hilton Head community. The most recent commercial operators of jet skis in Broad Creek, Harbour Town, and South Beach, are taking their customers out into Calibogue sound, under supervision. This is also happening in Skull Creek. There still is a proliferation of PWC (personal watercraft) in the waters of Hilton Head Island due to the resort and recreational character of the community. The good weather, and relatively safe waters are very conducive to this sport, and attracting users from outside the community. The downside to jet ski traffic are conflicts with other users of the waterways: fishermen, oystermen, crabbers, and those trying to navigate a vessel, be peacefully at anchor, or have a “quiet” look at the water from the shore. It should be noted that many offenders of South Carolina State Boating Laws are not residents of the Hilton Head community. Boating, PWC, parasailing issues concerning speed and congestion as they are related to the recreational boating seasons (April through October, annually).

1. Boating access issues and needs

There are 12 locations identified as marina and/or waterfront access sites on Hilton Head Island. There are also four boat launching sites, with one more in a development stage. The Town's 1999 Comprehensive Plan designates waterfront zoning on Hilton Head.

4. Environmental issues affected by boating

The Clean Water Task Force Report of 1997 identifies the history of water quality issues on Broad Creek. It is because of that report that the Broad Creek Assessment is being conducted as part of the Beaufort SAMP. There has been continual degradation of the waters of Broad Creek as the community has grown. Efforts by the Town staff are underway to restrict its use through better planning, and possibly restore it to its natural state. Broad

Creek has been designated a No-Discharge Zone. Several marine pump-out boats are docked in the Hilton Head area to assist transient vessels, vessels at anchor, or those unable to move to a stationary landside marine pump-out location. A Septic Tank Maintenance Program is being designed for waterfront properties on Broad Creek.

5. Existing boating regulations, ordinances, legislation and their enforcement

The Town believes that enforcement of existing SC State Boating Laws and DHEC regulations are the solution to conflicts of waterway uses. One particular enforcement concern involves the no-wake zones in Broad Creek. Two different types of zones exist, having two different fines for infractions attached to their enforcement. The locations of these zones are not easily identifiable, and prove to be a problem for visiting boaters. DHEC regulations are already being addressed in the Septic Tank Program, and the on-going research of the Broad Creek Assessment.

TOWN OF BLUFFTON

Hank Johnston, Mayor; Bruce Behrens, Town Manager; Pam McFarland, Community Development Planner; Laura Bailey, Senior Planner; Jacob Preston and Don Blair, Planning Committee

1. Local considerations

The Town of Bluffton has no plans for marinas in their future. Development agreements with the owners of Palmetto Bluff do include boating launching sites and community docks. There is no parking available at the existing oyster factory site to be able to enhance the public access to the May River. Since there are no marinas in Bluffton, there could probably not be a mooring field established. The Town does not have any dock ordinances, and is interested in more information on tidal creeks and headwaters. Waterfront aesthetics are a concern of the Town's citizens.

2. Impact of jet skis and all motorized boat traffic

There appears to be a proliferation of uneducated boaters on the May River, causing emotional and navigational disturbances to the community. This occurs when the tide is low, during the warm seasons, as boaters traditionally meet at the sandbar in the middle of the May. There are courtesy and decibel level issues involved in this behavior. Unnecessary wakes and erosion concerns are also a concern. There is a need for more enforcement by SCDNR, or Beaufort County Sheriff's Department. The Town looks forward to boating growth projections as a result of the SAMP study, for planning purposes. Recommendations are welcomed.

3. Boating access issues and need

Access is not one of the primary concerns voiced by citizens in the Town of Bluffton.

4. Environmental issues affected by boating

What is of most importance to the residents of Bluffton? "The River, the River, the River" as quoted by the Mayor. Education and planning tools are needed to help promote the high water quality levels of both the May and New Rivers. The Town wants information on nominating their rivers as no-discharge zones. The no-discharge zone designation is complimentary to the planning efforts of the town. This may require that a pump-out boat be available as a service of the Town.

5. Existing boating regulations, ordinances, legislation and their enforcement

The Town would like to see more enforcement of existing State Boating Laws on the May River; at least seasonally. They are interested in promoting safe and sound boating through signage and education.

TOWN OF PORT ROYAL

John Perry, Town Manager

1. Local considerations

The Town's goals for the future include the revitalization of the traditional waterfront. Their master plan includes the "Emerald Necklace" concept using the SC State Ports Authority property as a public access to Battery Creek, with lots of green space, pocket parks, boardwalks, etc. Plans for both a large boat harbor and a dry stack storage boat facility are being considered at this time.

Shrimp docks and a crab processing plant already exist in the Town, and their uses will be maintained and possibly enhanced by the waterfront revitalization. The abandoned causeway from the old (existing) Broad River Bridge provides other boating and water access opportunities also. The consideration of mooring fields in the Town's waters is being written as an ordinance similar to the one used by the City of Beaufort addressing temporary anchoring by transient vessels and alternatives. There are no Town ordinances addressing private docks; SCDHEC/OCRM provides the only dock building standards being at this time. The Town is not using the tidal creek map and related Beaufort County Dock Ordinance.

2. Impact of jet skis and all motorized boat traffic

The only problems noted regarding jet skis and the Town has to do with noise at the boat launching area at the Sands Park. Enforcement from the land is difficult, and DNR is not doing anything about decibel levels of this traffic. Traffic issues only occur during annual events i.e. holidays and the Beaufort Water Festival. Traffic considerations include parking problems at the boat landing area and related pedestrian issues (safety, trash, and right-of-ways both on land and in the water).

3. Boating access issues and need

There are two marinas in the Town, Battery Creek Marina and Port Royal Landing Marina. There is one boating launching ramp at the Sands Beach on Battery Creek, at the Naval Hospital, and another at Parris Island. In consideration of both public access and community redevelopment, two new marina sites are being proposed at the SC State Ports Authority in the Town. Information derived from the Beaufort SAMP will be used in planning these facilities to best meet the needs of the growing community these marinas will serve.

4. Environmental issues affected by boating

In the Port Royal community, the single waterway environmental issue is related to the cement operations, at the SC State Ports Authority terminal. Cement dust becomes airborne, covering boats on Battery Creek, and bringing concern about its affect on the waterway. Old septic tanks are being brought on-line through the Beaufort-Jasper cooperative plan with the Town of Port Royal. The two new marinas being proposed would bring two more marine pump-out facilities to this boating community. The Town is not considering placing the Broad River or Battery Creek in nomination as no-discharge zones.

5. Existing boating regulations, ordinances, legislation and their enforcement

The Town of Port Royal has a master plan that is reserving areas for water-dependent uses. It is recognized that the Port's property will need to be revitalized in the future, and the Town would like to participate in that effort. The Department of Natural Resources and the Offices of Ocean and Coastal Resource Management are doing a good job as far as the Town knows. Their assistance is needed in future planning.

CITY OF BEAUFORT

Bill Rauch, Mayor; John McDonough, City Manager; Libby Anderson, Planning Director; Isaiah Smalls, Public Works Director

1. Local considerations

The consensus of this group regarding future marinas and other public facilities is that there should be a policy established to encourage sensitive and quality development on the water; no specific development standards exist currently. The City has no plans at this time for upgrading the Beaufort Downtown Marina, or the waterside facilities of the Chambers Waterfront Park, both on the Beaufort River. Other commercial marine operations are identified in the City's Comprehensive Plan as to their magnitude and desirable locations. The un-permitted, existing mooring site adjacent to the Downtown Marina is not under the jurisdiction of the City. Citizens have expressed their concerns about responsibility for vessels at these moorings, particularly those not capable of motoring on their own. The status of these vessels is also of concern should a storm event occur; they may become derelict vessels without owners to retrieve them. Enforcement issues regarding responsibility for boats in the City's jurisdiction are a concern of the City. A potential mooring site exists near the Naval Air Station, though it does not offer any landside amenities. The City is looking forward to a resolution of the Beaufort County Dock Ordinance's legality.

2. Impact of jet skis and all motorized boat traffic

The group agreed that the County's Dock Ordinance addresses sensitive water bodies well enough. There was no specific comment regarding jet skis being regulated within City limits, since enforcement is a SCDNR responsibility. There are noise concerns about jet skis that need to be resolved, possibly through waterway zoning in the Beaufort River. The Woods Memorial Bridge, a swing-bridge, crosses the Beaufort River (Intracoastal Waterway, ICW) from the City of Beaufort to Lady's Island. This bridge has been a perpetual problem for both boaters and commuters. The problem for both groups has to do with its opening and closing schedule. The most recent schedule keeps it closed during daily rush hours, which then stops a great percentage of the transient boat traffic on the ICW. It is noted that commercial traffic is given priority for unscheduled openings.

3. Boating access issues and need

The City acknowledges that the municipal marina (Downtown Marina) is 100% occupied. Parking restrictions in the downtown area are a deterrent to planning for expansion to that facility. A County-owned boat-launching ramp at Pigeon Point is being turned-over to the City for maintenance and improvements. All other ramps are County-owned and maintained. The ramp at the Downtown Marina poses a difficult situation since parking is so restrictive, and a day-dock exists in the same locale as the ramp. This becomes a waterside traffic issue on holidays and special event days.

4. Environmental issues affected by boating

The city relies upon Beaufort County and SCDHEC/OCRM for all water quality issues, including the environmental considerations covered by the County's dock ordinance. The City's comprehensive Plan addresses critical areas in the city's limits – not necessarily in-the-water resources. The City wants more pump-outs within their limits. The Downtown Marina has a pump-out boat. There is a 7-day restriction on staying aboard a vessel at anchor at the mooring site in the Beaufort River. This is enforced by the City of Beaufort. The punishment includes the owner having to cover towing and storage fees for the vessel.

5. Existing boating regulations, ordinances, legislation and their enforcement

The Beaufort downtown Marina has persistent problems with boats 'waking their docks as they pass by. The City would like to have a posted No Wake Zone in front of this facility, with adequate enforcement provided by SCDNR. The City believes it has a good working relationship with both SCDHEC and OCRM.

The City of Beaufort is proud to maintain road-end vistas of its waterways, as well as public access points, with signage identifying all accesses.

BEAUFORT COUNTY PUBLIC WORKS DEPARTMENT

Christopher Eversmann, Director of Public Works

1. Local considerations

The Beaufort County Department of Public Works' only responsibility, as it relates to the waterways, is for the boat launching facilities in the County. The Comprehensive Plan identifies all of these locations, as well as other public accesses to the water. There is only one new launching ramp being designed for the County at a site on Broad Creek, on Hilton Head Island. It would be helpful to the County as a whole to define the boundaries of all the access points to water that exist in the County. Citizens have requested better maintenance of some of the existing facilities, as well as restrooms. There is a project to revitalize the Russ Point Boat Landing underway.

2. Impact of jet skis and all motorized boat traffic

Impacts and conflicts related to Launching Ramps that are noted by this Department include: noise, trash and parking issues. There is an effort to promote non-motorized vessel uses at some of the landings. Unfortunately, some commercial amphibious vessels, Jet Ski operations, and kayak operations have started using the public ramps as if they were their own private facilities, causing parking and access problems for the general ramp users.

3. Boating access issues and need

The issues that seem of most concern to the public have to do with private properties that surround public launching ramps. The County has worked to address these problems by correcting problems with seawalls, or areas where the public has traditionally used properties that are now identified as private. There are no guidelines for these issues to be identified or anticipated in advance.

4. Environmental issues affected by boating

This topic is not applicable to the Public Works Department

5. Existing boating regulations, ordinances, legislation and their enforcement

The general boating public has asked for more no wake zone within the County. This issue seems to be best handled by local governments; i.e. Hilton Head Island and Broad Creek No Wake Zones. The County has a good working relationship SCDHEC/OCRM on items like establishing critical lines, and operations or maintenance issues on County-owned facilities. The Beaufort County Sheriff's Department works with SCDNR to monitor and regulate the use of the waterways.

BEAUFORT COUNTY - PLANNING DEPARTMENT

Cindy Camacho, Assistant Planning Director
John Holloway, Environmental Planner

1. Local considerations

The Beaufort County Planning Department is an active participant in the Beaufort County SAMP. They have participated in all the workshops, and are very in tune with sensitive water bodies, and growth and development impacts. The Beaufort County Comprehensive Plan addresses areas of concern on the waterfront, as well as identifying locations suitable for development. The staff looking forward to more passive waterfront uses, i.e. picnic areas, or non-motorized vessel uses. New policies in the County are tending toward less environmental impacts in sensitive waters. The Planning Department is hoping to develop a "Fishing Village" somewhere in the County that encompasses many of the traditional water-oriented uses of Beaufort County, i.e. shrimping, crabbing, shellfish harvesting and processing. The staff would look forward to assistance from state agencies in siting this proposed facility in advance of a permit request. Staff has a concern about derelict vessels at moorings, particularly following storm events.

2. Impact of jet skis and all motorized boat traffic

The concerns of the Planning Department reflect those of the SAMP in general: how can we protect our sensitive waters from erosion, turbidity, fuel leakage, traffic capacity, etc. The Beaufort County Dock Ordinance was the initial attempt at addressing this concern. The ordinance limits length of docks in narrow tidal creeks. Waterway "activity zones" that determine space and distance from other users might be explored as a means toward limiting inappropriate uses in sensitive waters. Traffic issues need to be an enforcement concern of SCDNR, not the County. Privately owned commercial companies using of public facilities are identified as an impact to County launching ramps.

3. Boating access issues and need

The need for public access to the water has been identified in the "Fishing Village" concept by the County Planning Department. There are several sites that might be suitable, but the state agencies must be participants in the siting and planning. County Staff agrees with the preliminary SAMP recommendations that boat-launching ramps should never be sited in sensitive water bodies. They look forward to recommendations from this study for new boat launching sites within Beaufort County that can be permitted by state agencies. There is overwhelming use of the existing facilities during the good weather seasons.

4. Environmental issues affected by boating

The Planning Staff is looking for SAMP recommendations on all of the issues mentioned above. Their concern is how to implement the recommendations. If Beaufort County ordinances are not sufficient or applicable, then state mandates are necessary; how will the

County government and municipalities accomplish their goal of protecting water quality and the environment, without state support. Impacts are on going, and the need to educate and change our ways is now. There is a study (LUCES) being done in Beaufort County, in 2001 that will develop a model capable of predicting environmental impacts as they are related to growth. The Town of Hilton Head Island has established a No-Discharge Zone on Broad Creek, and Planning Staff believes that this should be done for major river systems in Beaufort County, including: New River, May River, Colleton River, Okatie River, Combahee River, Coosaw River, Whale Branch River. This action will establish the community's concern for protecting the sensitivity of the Low Country waterways, before they become impaired water bodies.

5. Existing boating regulations, ordinances, legislation and their enforcement

Post-Disaster Planning was noted as an important concern as it relates to the County waterways. Policy needs to be established for the waterfront community: 1) what the County can do for them, 2) what is expected of them, 3) identify their responsibility for their property (dock, vessels, shoreline) after a storm.

MUNICIPALITY REQUESTS AND SUGGESTIONS

Town of Hilton Head Actions to be taken:

- ❖ -Review No-Wake Zones and their enforcement on Broad Creek and Skull Creek
- ❖ -Map areas of boating traffic concern, and include the public in developing solutions
- ❖ -Advertise information regarding boating do's and don'ts on Hilton Head Island in national boating guides
- ❖ -Include Hilton Head Island Chamber of Commerce in boating safety and education efforts
- ❖ -Provide signage for marinas and boat launching ramps that address boating laws, ordinances, and regulations
- ❖ -Put boating information on the Town's website
- ❖ -Keep the local Legislative Delegation informed about the Special Area Management Plan and its implementation

Town of Bluffton Actions to be taken:

- ❖ -Look into requesting a pump-out boat through the Clean Vessel Act fund administered by SCDHEC-OCRM
- ❖ -Consider nominating the May and New Rivers for EPA No-Discharge Zone Status
- ❖ -Explore no wake zones and speed zones
- ❖ -Work with Beaufort County on uniform signage designating tidal creek and headwater areas
- ❖ -Work with SCDNR and Beaufort County Sheriff's Department to have more enforcement efforts on the waters of Bluffton during boating season

Town of Port Royal Actions to be taken:

- ❖ -Plan improvements to the Sands Beach area boat launching facilities with Beaufort County Public Works Department
- ❖ -Change public access route to the Naval Hospital Boat Launching facility with Beaufort County Public Works Department
- ❖ -Promote the revitalization of the SC State Ports Authority property
- ❖ -Offer a waterfront location in the Town of Port Royal for OCRM, DNR, DHEC/EQC
- ❖ -Provide space on the Town's web-site for boater education/information
- ❖ -Put boater education/information in the Town's newsletter
- ❖ -Put up kiosks in the Town that provide boater education/information

City of Beaufort Actions to be taken:

- ❖ -Revisit the opportunity for the City of Beaufort to permit the existing mooring site on the Beaufort River
- ❖ -Develop a storm event plan for moored vessels in the City of Beaufort's jurisdiction with SCDNR
- ❖ -Consider speed limits within the City limits on the Intracoastal Waterway, to be placed and enforced by SCDNR
- ❖ -The City would like to consider enabling legislation, by the State of South Carolina, giving them the option to regulate their portion of the Intracoastal Waterway

Beaufort County Actions to be taken:

- ❖ -Work with County Planning staff to develop the exact locations of all public accesses to the waterways within Beaufort County
- ❖ -Develop signage for County Launching Ramps that include: Welcome signs, Rules and Ordinances, and Adopt-a-Boatramp program
- ❖ -Find grant funding for signage, e.g., Boat/US

- ❖ -Address the hurricane/storm event impacts that may cause massive debris-in-the-water situations for the County. Learn from the Hurricane Hugo experience of Charleston and Georgetown Counties.
- ❖ -Identify boat launching and other waterfront and public access areas that might warrant public restrooms and trashcans.
- ❖ -Develop a derelict property County Ordinance to address both private and commercial docks and vessels
- ❖ -Develop a position of "County Resource Officer" who would educate the community on Beaufort County's growth and land-use/waterway-use goals
- ❖ -Look into how other governments treat the operation of jet skis in our public waterways
- ❖ -Complete a River and Water Quality Overlay District
- ❖ -Work on the proposed uniform signage for boat launching ramps in Beaufort County
- ❖ -Develop the public and recreational use maps of Beaufort County as identified by Public Works Department
- ❖ -Develop the post-disaster guidelines for private and commercial waterfront property owners and boat owners
- ❖ -Work with the Policy Committee of the Beaufort SAMP to find a mechanism for implementation of these recommendations

Appendix C – SCDHEC/OCRM Marina Regulations

(3) The Department shall promote public access to the beaches of this state.

(4) The Department shall consider state and local comprehensive plans. No permit shall be issued which is inconsistent with the state plan, and all permits issued shall be consistent with local plans to the maximum extent practicable.

(5) The Department shall be guided by the prohibitions against construction contained in Section 48-39-290 and Section 48-39-300 which are based upon the conclusion that ill-planned development, whether habitable structures, recreational amenities, erosion control devices or other manmade structures, will now and in the future adversely impact the fragile beach/dune system. These structures interfere with the natural system and impact the highest and best uses of the system. In order to protect the highest and best uses of the beach/dune system, the Department, in its management capacity, shall encourage minimal development therein.

(6) The destruction of beach or dune vegetation seaward of the setback line is prohibited unless there is no feasible alternative. When there is destruction of vegetation permitted seaward of the setback line, mitigation, in the form of planting new vegetation to rectify the destruction is required as a permit condition. In no event shall any part of a building be constructed on a primary oceanfront sand dune.

E. Abandoned Vessels and Structures. Abandoned vessels and structures, as defined in R.30-1(D) have the potential to harm critical area environments through their physical presence and the release of contaminants that may be associated with them. In addition, they may also be a hazard to navigation, public access and sources of unsightly and dangerous floating debris as they deteriorate and break apart. Specific standards for abandoned vessels and structures are as follows:

(1) Vessels or structures determined to be abandoned by OCRM may be required to be removed from the critical area.

(2) Upon notification by OCRM, the owner of the abandoned vessel or structure will have 30 days from date of notification to remove it from the critical area at his or her expense.

(3) Abandoned boats, barges, or other watercraft whose ownership cannot be established may be removed from the critical area by any person, at their expense, and in accordance with Section 50-23-135 of the SC Code of Laws, 1976.

(4) Structures, other than watercraft, whose ownership cannot be established may be removed by any person, at their expense, provided notification is provided to OCRM prior to removal. Such notification shall include date and method of removal.

(5) OCRM may require a Department permit for removal of any vessel or structure if it is deemed that the removal process will significantly impact the surrounding marsh environment.

30-12. SPECIFIC PROJECT STANDARDS FOR TIDELANDS AND COASTAL WATERS.

A. Docks and Piers:

(1) A dock or pier is a structure built over and/or floating on water and is generally used for the mooring of boats. Docks and piers are the most popular method of gaining access to deep water. Although they are least objectionable from an ecological point of view, docks and piers sometimes pose navigational problems,

restrict public use of the water and, under certain circumstances, possess potential for creating environmental problems. For more detailed standards pertaining to community docks, refer to 30-12(E)(5), (6) and (7) herein.

(2) The following standards are applicable for construction of docks and piers:

(a) Docks and piers shall normally be limited to one structure per parcel and shall not impede navigation or restrict the reasonable public use of State lands and waters;

(b) Docks and piers shall be constructed in a manner that does not restrict water flow;

(c) The size and extension of a dock or pier must be limited to that which is reasonable for the intended use;

(d) Docks and piers should use the least environmentally damaging alignment;

(e) All applications for docks and piers should accurately illustrate the alignment of property boundaries with adjacent owners and show the distance of the proposed dock from such extended property boundaries. For the purpose of this section, the extension of these boundaries will be an extension of the high ground property line. The Department may consider an alternative alignment if site specific characteristics warrant or in the case of dock master plans, when appropriate.

(f) Walkways leading to the dock or pier shall not exceed four feet in width (unless the applicant can justify a need for a wider structure) and should be elevated at least three feet above mean high water;

(g) Dry storage in uplands will be encouraged in preference to moorage in crowded areas;

(h) Developers of subdivisions and multiple family dwellings are encouraged to develop joint-use or community docks when their plans are in the development stage. However, community docks may be considered a marina if any services are offered besides moorage for those having a right to use the dock or if the size and location of the community dock creates the potential for significant impact;

(i) Project proposals shall include facilities for the proper handling of litter, waste, refuse and petroleum products, where applicable;

(j) Where docks and piers are to be constructed over tidelands utilized for shellfish culture or other mariculture activity, the Department will consider rights of the lessee and the public prior to approval or denial.

(k) Storage on docks will be limited to a bench-like locker no larger than 3 feet high, by 3 feet deep, by eight feet long. Docks cannot be enclosed by walls or screens.

(l) Docks longer than 1,000 feet over critical area are prohibited. This is inclusive of pierheads, floats, boatlifts, ramps, mooring pilings and other associated structures.

(m) Handrails, if proposed, shall be limited to what is minimally needed for safety as outlined in the Southern Building Code (1994, Section 1015.1).

(n) Docks must extend to the first navigable creek with a defined channel as evidenced by a

significant change in grade with the surrounding marsh. Such creeks cannot be bridged in order to obtain access to deeper water. However, pierheads must rest over open water and floating docks which rest upon the bottom at normal low tide will not normally be permitted.

(o) For lots platted and recorded after May 23, 1993, before a dock will be permitted a lot must meet the minimum, local requirements to construct a habitable structure. In addition, a lot must have 75 feet of water frontage along the marsh edge and at least 75 feet of frontage between extended waterfront property lines. Lots with less than the required frontage and which are buildable, but with at least 50 feet of frontage, both on the marsh edge and along the water between the waterfront extended property lines may be eligible for a common dock with the adjacent property. Lots less than 50 feet wide are not eligible for a dock.

(p) No docks or pierheads or other associated structures should normally be allowed to be built closer than 20 feet from extended property lines with the exception of common docks shared by two adjoining property owners. However, the Department may allow construction closer than 20 feet or over extended property lines where there is no material harm to the policies of the Act.

(q) The Department sets forth the following standards for size and use of pierheads and floating docks, these figures do not include the square footage of the walkways or ramps:

(i) Creeks smaller than 20 feet wide, as measured from marsh vegetation on both sides should normally be restricted to a walkway with a structure of 50 square feet. In some circumstances lots on creeks of this size may not qualify for docks;

(ii) Creeks between 20 and 50 feet, as measured from marsh vegetation on both sides, shall be restricted to fixed pierhead and floating dock combinations up to 120 square feet unless special geographic circumstances and land uses warrant a larger structure;

(iii) Creeks between 51 and 150 feet, as measured from marsh vegetation on both sides, shall be restricted to docks up to 160 square feet unless special geographic circumstances and land uses warrant a larger structure;

(iv) Creeks larger than 150 feet, as measured from marsh vegetation on both sides, shall be restricted to docks up to the average size of existing, adjacent docks and pursuant to established permitting rules and regulations;

(v) Grandfathered or previously permitted fixed and floating docks which are larger than allowed in R.30-12(A)(2)(q)(i-iv) may not be enlarged.

(vi) Enclosed boat houses are prohibited;

(vii) Boats moored at docks cannot block or unduly impede navigation. Under no circumstance are live-aboards allowed at private docks. Commercial activities are prohibited at private docks unless they are water-dependent and approved by the Department. Illegal use of a private dock is grounds for permit revocation.

(r) Roofs on private docks will be permitted on a case-by-case basis, with consideration given to the individual merits of each application. Precedent in the vicinity for similar structures will be considered as well as the potential for impacting the view of others. Roofs which have the potential to seriously impact views will

not be allowed, while those that have minimal impact may be allowed. The following standards will be used in evaluating applications for roofs.

(i) Roofs shall be clearly shown on the public notice application drawings, and described in the written description of the project. Attics or enclosed ceiling storage on roofed docks are prohibited.

(ii) Gabled and flat roofs are prohibited. Monosloped roofs are allowed provided the highest point of the roof does not extend above 12 feet from mean high water (MHW).

(iii) Rails on decks are not to be incorporated into roofs and no steps, ladders or other means of accessing the roof on a permanent basis are allowed.

(s) Boat lifts or davit systems are allowed, provided the entire docking system is limited to the minimum structure size needed to accomplish the intended use. The following standards will be used in evaluating applications for boat lifts and davits:

(i) Single family docking facilities will be normally limited to one lift per structure.

(ii) Hull scraping, sandblasting, painting, paint removal, and major engine repair are prohibited on lifts and davits.

(iii) Boat lifts must be open sided with no enclosures. Catwalks are allowed and shall be a maximum of 3 feet wide.

(iv) Roofs, if proposed, will be subject to R.30-12(A)(2)r and creek size will be considered when determining allowable square footage (R.30-12(A)(2)q).

(3) General permits may be issued for docks covered by a master plan, as outlined in CH.III.VI.D of the Coastal Zone Management Plan. This master plan must be placed on public notice and processed as a major application. If a master plan is approved by the Department, but no general permit is applied for or issued, the approved master plan will be used as a framework for permitting decisions, subject to comments received during the public review process.

(a) Before individual structures covered by the general permit are constructed, written notice must be given to and approval received from the Department to insure the docks are built according to the plan.

(b) Amendments to the general permit must be in keeping with the spirit of the original plan to the maximum extent feasible.

(c) If the general permit expires before all of the docks permitted have been constructed, permit applications for the remaining structures will be reviewed in light of the master plan unless the master plan no longer reflects the Department policies and regulations.

B. Boat ramps:

(1) Boat ramps provide access to the water for those who do not have water access by means of docks, piers, or marinas. However, boat ramp construction may require filling or, in some cases, dredging of wetland areas.

(2) Specific standards which shall apply are as follows:

(a) Filling or excavating of vegetated wetlands for boat ramp construction is prohibited unless no feasible alternatives exist in non-vegetated wetland areas. In addition, the area to be filled or excavated must be limited to that which is reasonable for the intended use;

(b) Boat ramps must consist of environmentally acceptable materials, demonstrate sound design and construction so that they could reasonably be expected to be safe and effective, and minimize adverse effects.

(c) Justification for boat ramp construction in environmentally sensitive areas shall be considered using the following priorities:

(i) public use - open to all citizens;

(ii) restricted use - open to citizens of a particular area or organization only;

(iii) private use - use for one citizen or family;

(d) In cases where private use is necessary, siting of ramps must, wherever feasible, be located in areas where the least environmental impact will accrue to the area and be limited to 12 feet in width;

(e) Boat ramp location requiring dredging or filling of wetlands to provide deep water access to the ramp, parking areas for the ramp, or other associated facilities are prohibited unless no feasible alternatives exist and environmental impacts can be minimized;

(f) The siting of "public use" boat ramps is encouraged in easily accessible areas such as bridges and existing, abandoned causeways, provided that these sites comply with other applicable regulations.

C. Bulkheads and Revetments (Rip-rap) (Other than ocean front, as covered under R.30-13(N)):

(1) In an attempt to mitigate certain environmental losses that can be caused by these structures, the following standards are adopted:

(a) Structures must be designed to conform to the critical area line (upland boundary), to the maximum extent feasible, and constructed so that reflective wave energy does not destroy stable marine bottoms or constitute a safety hazard;

(b) Structures may be constructed up to 18 inches from the existing escarpment. In situations where this is not feasible, Department staff will determine the location of the bulkhead or revetment on a site by site basis;

(c) Bulkheads and revetments will be discouraged where marshlands are adequately serving as an erosion buffer, where adjacent property could be detrimentally affected by erosion, sedimentation, or where public access is adversely affected;

(d) Bulkheads and revetments will be prohibited where public access is adversely affected unless no feasible alternative exists.

D. Cables, Pipelines, and Transmission Lines:

(1) Installation of cables, pipelines, and transmission lines is preferred in non-wetland areas. Excavating activities in critical areas are sometimes required with the preferred alternative being directional boring. Excavation and filling also are sometimes required to construct foundation structures attendant to the installation of overhead transmission line crossings. These installations shall be designed to minimize adverse environmental impacts.

(2) In addition to standards for dredging and filling, the following standards are applicable:

(a) To the maximum extent feasible, alignments must avoid crossing the critical areas;

(b) Creation of permanent open water canals to install pipelines is prohibited since such projects usually interfere with drainage patterns and may adversely affect water quality through accelerated bank erosion;

(c) Dimensions of temporarily excavated canals for cables and pipelines should be minimal. Silt curtains are required for all excavations;

(d) Wherever feasible, all excavations in wetland areas must be backfilled with the excavated material after installation of the appropriate structure, while being careful to maintain the original marsh elevation. In addition, excavated material must be stockpiled on highground whenever feasible;

(e) Appropriate erosion control measures shall be employed during the crossing of wetland areas. Where appropriate, revegetation with suitable wetland species will be required;

(f) Alignments of new projects should be designed to utilize existing rights-of-way and topographic features, wherever feasible;

(g) The extension of public services, such as sewer and water facilities, involving the expenditure of public funds or issuance of government revenue bonds to previously undeveloped barrier islands will not be approved unless an overriding public interest can be demonstrated.

E. Marina/Community Dock Location and Design:

(1) The Department's marina/community dock policy is based on the belief that marinas and community docks can be operated in a manner that does not degrade the surrounding waters. If water quality monitoring indicates a decline in water quality, remedial action will be required. Each applicant for a marina and dry storage facility in the critical area of the coastal zone must submit an Operations and Maintenance Manual with the permit application. (Community docks may also be required to submit an Operations and Maintenance Manual.) This Operations and Maintenance Manual must be in accordance with 30-12(E)(6), and approved in writing by the Department staff. The requirements of the Operations and Maintenance Manual may be modified if deemed necessary by the Department.

(2) Commercial docks and boat repair yards are also considered a marina type facility. The standards that apply to marinas may also be used as criteria in the evaluation of permit applications for commercial docks and boat repair yards.

problems, and a reduction in the size of, or a change in the configuration of, the marina. Such action may be taken at any time the Department determines that significant state water quality compliance problems exist, at the time SCDHEC enlarges the closure area, or at the time of a review.

(b) A water quality sampling program must be instituted and results submitted to the Department. This sampling program must be performed prior to construction and as specified in 30-12(E)(6)(c) below. This sampling must be performed by a SCDHEC certified laboratory at the expense of the permittee.

(c) Dredging must be performed in accordance with 30-12(E)(6)(d) and 30-12(G).

(d) A stormwater plan for the marina and associated parking areas, including runoff from the permanent spoil disposal area and adjacent highland development, must be submitted to and approved in writing by the Department staff before any work is performed under the Department permit.

(6) The Operations and Maintenance Manual shall be submitted with the application and placed on public notice. Depending on the type of facility, it shall contain the following information:

(a) Marina Operations

(i) An experienced operator shall be in charge of the marina. The permittee and its agents are responsible for compliance with the issued Operations and Maintenance Manual and with all conditions of the permit.

(ii) The marina permittee must include in the lease agreement with boat owners a provision requiring that boat owners comply with all applicable State and federal regulations. The marina permittee shall ensure that violations are reported promptly to the proper authorities.

(iii) A complete copy of the marina permit, including any required marina report, the Operations and Maintenance Manual, all conditions or requirements placed on the permit and copies of all water quality monitoring reports required pursuant to the permit, shall be readily available at the marina.

(iv) The marina permittee shall prominently display and distribute material pertaining to the maintenance of water quality standards at the marina and report violations of such standards to the proper authorities.

(b) Water Quality Management:

(i) Adequate working wastewater pump-out facilities shall be provided at each marina (unless specific exceptions are allowed in writing by the Department). These facilities must be adequate to handle all wastewater generated at the marina. The marina operator may charge a reasonable fee for the use of the pump-out facilities.

(ii) Adequate bathroom facilities must be provided in order to discourage any overboard discharge of sewage from boats. The number of toilets required for any given marina shall be determined by the nature and size of the marina and by its specific site location. However, two toilets and one lavatory for women and one toilet, one urinal, and one lavatory for men shall be required for all marinas with one hundred or fewer slips, and unless there are mitigating circumstances, the Department shall require one toilet and one lavatory for women and one toilet, one urinal, and one lavatory for men for every additional 100 boat slips or fraction thereof.

Toilet facilities shall be constructed in a location to encourage their use. Additional facilities may be required where restaurants, motels, laundries, and other nonwater-dependent structures are located in close proximity to the marina. All pump-out and sewage facilities must be included in the public notice and certified in writing by SCDHEC.

(iii) Plans for potable water supplied to the marina docks must be approved in writing by SCDHEC.

(iv) Marina boat fueling systems must be equipped with emergency cutoffs at the harbor master's office, at the tank, at the pump and at the dock's edge.

(v) Depending on the size and type of boats using the marina, adequate booms must be available to isolate any oil spill around the fuel dock, a leaking boat, or a sunken boat.

(vi) Absorbent pads must be available at the marina for boat use and for removing incidental spills during fueling operations.

(vii) The discharge of sewage from boats is prohibited unless it is treated by a Marine Sanitation Device and complies with all applicable federal laws and regulations. The discharge of any other kind of waste into state waters, including, without limitation, garbage, refuse, trash or debris, is prohibited.

(viii) Adequate separate refuse containers for garbage shall be available at the marina and maintained daily. Containers for toxic substances shall not be placed over or near the water.

(ix) Boat repairs, paint scraping, boat painting, and other activities that may result in a discharge of waste or pollutants into State waters are prohibited;

(x) One reasonably sized dock masters office may be constructed within a permitted marina. This office will be limited to water dependent uses only such as fuel sales. Restroom facilities may be placed in this office, however, food and beverage services, clothing sales and other nonwater dependent uses are prohibited.

(c) Water Quality Monitoring Requirements for Marinas: A water quality monitoring program is required for the SCDHEC-OCRM permit. The specific program shall be determined by the Department. Any changes in requirements must be approved in writing by the Department. Sampling results must be supplied to the Department.

(i) Monitoring requirements shall be tailored to the marina based on factors such as flushing, existing water quality, presence of shellfish, number of slips, and presence of fueling facilities.

(ii) A minimum standard monitoring program will consist of an annual sediment analysis. These samples shall be taken once a year between June and August with a minimum of one composite sample taken within the confines of the marina and one sample taken outside the marina. All sampling sites must be approved in writing by the Department staff and the South Carolina Department of Natural Resources. Samples will be analyzed for PAH's, copper, zinc, lead, cadmium, chromium, and any other parameters required by the Department staff.

(iii) Marinas in poorly flushed areas may be required to sample other parameters such as

dissolved oxygen and/or fecal coliform bacteria. These monitoring requirements will be determined on a site specific basis using the factors presented in (i) above.

(iv) Sampling requirements will be periodically reviewed and may be increased or reduced as conditions warrant.

(d) Dredging:

(i) Unless otherwise allowed by permit, all initial and maintenance dredging shall take place between December 1 and March 1, and all dredging shall be performed by hydraulic dredge.

(ii) Agitation dredging is prohibited.

(7) Standards for Community Docks: The following standards are applicable for the construction of community docks:

(a) Community docks shall not impede navigation or restrict public use of State lands and waters;

(b) Community docks shall be constructed in a manner that does not restrict water flow;

(c) The size and extension of a community dock must be limited to that which is reasonable for the intended use;

(d) Community docks should use the least environmentally damaging alignment; and

(e) All applications for community docks should accurately illustrate the alignment of property boundaries with adjacent owners;

(f) No leasing of space or other commercial uses are allowed at community docks.

F. Transportation:

(1) There is often a strong public need for transportation projects. Unfortunately, such projects can pose a significant risk of environmental degradation. However, careful consideration of environmental factors can guide development toward more favorable results. To the maximum extent possible, environmental considerations shall be harmonious with public safety considerations.

(2) The specific standards are as follows:

(a) In the planning of major transportation routes and airports, these projects should be sited for location inland from the critical areas;

(b) The location and design of public and private transportation projects must avoid the critical areas to the maximum extent feasible. Where coastal waters and tidelands cannot be avoided, bridging rather than filling of these areas will be required to the maximum extent feasible;

(c) Where wetlands will be destroyed, their value as wetlands will be assessed by the Department and weighed against public need for their destruction;

(d) To the maximum extent feasible, transportation structures must be designed so as not to alter the natural water flow and circulation regimes or create excessive shoaling or erosion. Where applicable, adequate clearance for commercial and pleasure craft must be provided;

(e) Where feasible, maximum care shall be taken to prevent the direct drainage of runoff water from transportation routes and associated facilities from entering adjacent water bodies;

(f) Where appropriate, bridges and approaches should be designed to provide for the enhancement of public access by the utilization of fishermen, catwalks, boat launching ramps, bike lanes and other structural features;

(g) During the planning of a multi-lane widening or improvement project, it is preferable to follow the existing alignment in wetland areas. Existing causeway and fill areas must be utilized wherever possible. The degree to which any existing causeway through wetlands can be widened must be reasonably proportionate to the expected traffic load of the causeway in the near future and the size and use of the area being provided access. The width of medians of divided highways must be reduced as much as possible wherever they cross wetland areas;

(h) Roadway embankments and fill areas shall be stabilized by utilizing appropriate erosion devices and/or techniques in order to minimize erosion and water quality degradation problems. Culverts shall be required, where appropriate, in order to maintain normal tidal influence and minimize disruption of drainage patterns;

(i) The Department will require applicants for transportation project permits to consider the accommodation of other public utilities in facility design, thus avoiding unnecessary future alteration such as that caused by the laying of cables or transmission lines in wetlands adjacent to an existing roadway;

(j) New road or bridge projects involving the expenditure of public funds to provide access to previously undeveloped barrier islands will not be approved unless an overriding public interest can be demonstrated.

G. Dredging and Filling:

(1) Development of wetland areas often has been considered synonymous with dredging and filling activities. Dredging and filling in wetlands can always be expected to have adverse environmental consequences; therefore, the Department discourages dredging and filling. There are cases, however, where such unavoidable environmental effects are justified if legitimate public needs are to be met.

(2) The specific standards are as follows:

(a) The creation of commercial and residential lots strictly for private gain is not a legitimate justification for the filling of wetlands. Permit applications for the filling of wetlands and submerged lands for these purposes shall be denied, except for erosion control, see R.30-12(C), or boat ramps, see R.30-12(B). All other dredge and fill activities not in the public interest will be discouraged;

(b) Dredging and filling in wetland areas should be undertaken only if that activity is water-dependent and there are no feasible alternatives;

(c) To the maximum extent feasible, dredging and filling activities should be restricted in nursery areas and shellfish grounds and during periods of migration, spawning, and early development of important sport and commercial species;

(d) Dredging and excavation shall not create stagnant water conditions, lethal fish entrapments, or deposit sumps or otherwise contribute to water quality degradation;

(e) Designs for dredging and excavation projects shall, where feasible, include protective measures such as silt curtains, diaphragms, and weirs to protect water quality in adjacent areas during construction by preventing the dispersal of silt materials;

(f) Dredged materials shall be deposited and contained in such a manner so as to prevent dispersal into adjacent wetland areas and, in all cases, new facilities must have permanent upland disposal sites. Existing facilities must have either permanent upland disposal sites or EPA approved ocean disposal sites;

(g) Applications for dredging in submerged and wetland areas for purposes other than access, navigation, mining, or drainage shall be denied, unless an overriding public interest can be demonstrated. Dredging permits for mining will be issued only as specified in (2)(h) below. Drainage permits must be consistent with the provisions in R.30-12(L);

(h) Applications for dredging for mining activities within the critical areas will be denied unless a significant portion of the resource is located in the critical area, extraction of the resource is clearly necessary, and benefits derived from extraction would outweigh resultant detrimental impacts on coastal ecosystems. For any permit issued to allow dredging for mining operations in the critical areas, a complete site reclamation plan shall be required;

(i) Wetlands shall not be utilized as depositories for waste materials except as discussed in R.30-12(I and J);

(j) In all cases, dredging activities shall not be approved until satisfactory disposal sites have been acquired.

(k) Only hydraulic dredging is permitted unless the material is being placed in a hopper barge for offshore disposal or unless the applicant can show that hydraulic dredging is infeasible in a site-specific application.

(l) Marinas will usually not be allowed in areas that require maintenance dredging more often than once every four years.

H. Navigation Channels and Access Canals:

(1) Certain dredging activities involve the creation and maintenance of navigation channels and access canals. These activities have a potential for severe environmental impacts and should meet a demonstrated public need.

(2) Where the Department determines that such activities are justified, the following standards will be applied:

(a) Dredging for establishment of new canals which involves permanent alteration of wetland habitats will be prohibited unless no feasible alternative exists. Establishment of canals for purposes of creating waterfront lots from inland property will be prohibited unless it can be demonstrated that there will be no significant environmental impacts on critical areas;

(b) To the extent feasible, project plans must utilize piers or catwalks, rather than channels or canals, to reach deeper water areas;

(c) Access canals shall be designed to insure adequate flushing and shall not create dead-end or stagnant water pockets. Open-ended, U-shaped, or semicircular canals are generally preferred over dead-end canals, since they usually provide better water circulation;

(d) Highland waterway construction that is slated to be tied into wetland areas shall be constructed in the dry, if feasible, so that sloping and stabilization of the banks can be completed before the plug is removed for the connection to open waters. Where dry construction is not possible, temporary plugs or silt curtains at the end of canals connected to waterways should be maintained until all sediment settles out;

(e) The sides of navigation channels and access canals should be gently sloping rather than vertical to facilitate biological as well as physical stabilization of the canal banks;

(f) When several landowners are to be served by a project, dredging for navigation channels and access canals should be well planned to prevent unnecessary excavation. Tributary canals in the highlands leading to a central navigation channel should be utilized rather than separate channels for each waterfront landowner;

(g) The berm of access canals should be raised so that there is a gradual slope away from the canal edge. This will help prevent introduction of contaminants into adjacent wetland areas;

(h) Alignment of channels and canals should make maximum use of natural or existing channels. Alignment of channels and canals should avoid shellfish beds, nursery areas, and spawning areas in wetlands.

I. Deposition of Dredged Material:

(1) The deposition of dredged materials resulting from numerous dredging activities along the coast has serious environmental effects separate from the original dredging activity. Thousands of acres of productive wetland habitat have been destroyed by such deposition. Recognizing that additional disposal sites will be required, it is important that site acquisition proposals include plans for mitigating any adverse impacts upon the environment.

(2) The following standards are to be utilized:

(a) Upland disposal of dredged material shall always be sought in preference to disposal in wetlands. Vegetated wetlands and mudflats shall not be utilized for disposal of dredged materials unless there are no feasible alternatives. Any other wetlands should not be utilized for disposal of dredged materials when other alternatives exist;

(b) Open water and deep water disposal should be considered as an alternative if highland

alternatives are not feasible. However, open and deep water disposal sites should be seriously considered only after careful consultation with the Department and other relevant State and Federal agencies;

(c) Dredged materials containing hazardous levels of toxic material must be disposed of with extraordinary caution. These materials shall never be disposed of in wetland areas and only in highland areas which are lined and diked with impervious materials. These materials will only be disposed in open water ocean dumping sites when maximum safety has been demonstrated after thorough review by the Department and other appropriate state and federal agencies;

(d) Dikes surrounding disposal areas should be shaped and vegetated immediately to minimize erosion, with outfalls positioned to empty into non-wetland areas;

(e) Future disposal sites shall be reviewed on a case-by-case basis;

(f) Wherever feasible, existing disposal areas shall be utilized to the fullest extent possible; this would include raising the height of the embankments to increase the holding capacity of the disposal area;

(g) Consideration must be given to the temporal aspects of spoil deposition - for example, impacts on spawning, fish migrations, shellfish harvesting, waterfowl nesting and wintering areas, and mosquito control. Attention must be given to possible adverse impacts of various alternative sites on the public health and welfare as well as on critical fish and wildlife areas;

(h) In all cases, dredging activities shall not be approved until satisfactory disposal sites have been acquired.

J. Waste Treatment Systems:

(1) The Department regulates the installation and operation of waste water treatment facilities, septic tanks, and landfills. Normal maintenance and repair of sewer facilities are exempted from the Department permit requirements by Section 48-39-130(D). The discharge of treated effluent is also exempted; provided, however, that the Department shall review and comment on these discharges. The Department is concerned primarily with wetland degradation problems which could involve commercially important shellfish, recreational fisheries, and critical wildlife habitats.

(2) Standards applicable to these installations are as follows:

(a) Applications for the construction of lagoons or impoundments for waste treatment facilities, solid waste disposal sites and similar activities in the critical areas shall be denied unless there are no feasible alternatives and it can be demonstrated that there will be no significant environmental impacts;

(b) Wherever feasible, construction and design of waste treatment facilities shall be accomplished in such a manner that no effluent will be discharged into areas where shellfish and other marine resources would be adversely affected. Where waste treatment facilities would affect open, productive shellfish harvesting areas, the Department must consider the rights of the lessee, if applicable, or the public in the case of public oyster grounds, as well as impacts on shellfish resources;

(c) The siting of sewage treatment systems should avoid the critical areas. The location of structures other than actual pipelines, such as pump or lift stations, in critical areas will be prohibited unless no

feasible alternatives exist;

(d) The construction of sewage treatment facilities and associated discharge pipes should be located and designed so as not to have adverse impacts upon areas of significant public use.

K. Marsh Impoundments for Recreational and Commercial Activities:

(1) Marsh impoundments totaling nearly 69,000 acres comprise a significant portion (approximately 16 percent) of our coastal wetlands. An additional acreage, perhaps equaling this figure, has been impounded in the past but consists today of tidally influenced areas where embankments are no longer maintained. Once important rice growing areas, the majority of these impoundments are managed primarily for recreational waterfowl hunting, wildlife sanctuaries, and other commercial, agricultural, and preservation uses.

(2) Proposals will be reviewed on a case-by-case basis according to the following standards:

(a) Permit applications to impound previously unimpounded wetlands or areas inundated by Outstanding Resource Waters shall be denied unless an overriding public interest is clearly demonstrated.

(b) The following factors will be considered in the review of permit applications for the impoundment of wetlands:

(i) Condition of existing dikes. Projects should require a minimum of new bank construction in wetlands.

(ii) Amount of wetlands proposed to be impounded.

(iii) The extent to which the project would block waters presently used for recreation or navigation by the public.

(iv) Degree of salinity of waters impacted by the proposed project.

(v) Quality of waters affected by the proposed project.

(vi) Primary purpose of the impoundment.

(c) All applications for the impoundment of wetlands must be accompanied by a detailed management plan setting forth the intent and method of managing the impounded areas. The management plan must be approved by the Department prior to permit issuance and shall become a condition of the permit. This plan must contain, but not necessarily be limited to, the following information:

(i) Applicant's objective(s) for the impoundment.

(ii) Schedule of water level manipulations.

(iii) Methods of pest and predator control (i.e., use of pesticides, prescribed burning, etc.).

(iv) Water quality management plan.

L. Drainage Canals or Ditches:

(1) Drainage canals or ditches should follow the least damaging alignment and should meet one or more of the following needs:

- (a) insect or vector control as a public health necessity;
- (b) other public health purposes;
- (c) the control of runoff as part of a comprehensive flood plain management plan. Upland treatment of runoff is required if new drainage ways are permitted in critical areas.

(2) In addition to the application standards for dredging and filling and navigation channels and access canals, the following standards shall apply:

- (a) Drainage canals and ditches shall not create dead water or stagnant pockets;
- (b) To the extent feasible, the alignment of drainage canals should avoid the more productive wetlands;
- (c) To the extent feasible, alignments of canals shall make maximum use of existing deep water channels to avoid unnecessary excavation;
- (d) To the extent feasible, the quantity and quality of any discharged waters shall not result in extensive alteration of wetlands or the quality of coastal waters;
- (e) All dredged material must be disposed of in accordance with the regulations under R.30-12(I).

M. Nonwater-Dependent Structures:

(1) Nonwater-dependent structures, as defined in Section R.30-1(D), have been built in the past on pilings, moored or in other ways situated over coastal water and/or tideland critical areas. These structures are a serious threat to the values set forth in Section 48-39-20(E).

(2) Nonwater-dependent structures, including buildings, houses, or offices that float shall be prohibited from being constructed, moored, or otherwise placed in or over tidelands and coastal water critical areas unless there is no significant environmental impact, an overriding public need can be demonstrated, and no feasible alternatives exist.

(3) The Department shall at its discretion determine on a case-by-case basis whether or not a floating structure is a boat and thus exempt from the Act or in fact is a nonwater-dependent structure. This shall be based upon the primary function of the floating structure. The mere fact that a structure is registered as a vessel or capable of being propelled does not mean it is exempt from the Department regulations.

N. Access to Small Islands: Inappropriate development can affect the values set forth in Section 48-39-20(E) and the policies the Department is required to implement pursuant to Section 48-39-30. To prevent inappropriate access to small islands, permanent filling for access is prohibited, except for the expansion of existing useable causeways. Bridging will be considered based upon:

- (1) Distance of bridging required;
- (2) Type of bridging and dimensions of bridging requested;
- (3) Configuration of shoreline;
- (4) Size of the island including highland and critical area;
- (5) The existence of feasible alternative access;
- (6) Public need;
- (7) Impacts on protected resources;
- (8) The ability of the owner to tie into existing sewer utilities or meet SCDHEC standards for septic tanks;
- (9) Impact upon values set forth in Section 48-39-20(E);
- (10) The island is subject to stormwater and management policies set forth in the Program Document;
- (11) The owner must provide a dock master plan, and a development plan. Mitigation will be required for any fill placed in the critical area for widening causeways.

O. Mariculture:

(1) Mariculture means the confined cultivation of aquatic species in the marine environment, including the spawning and rearing of juveniles and adults, either alone or in combination with other species, and the trafficking in said species.

(2) Mariculture activity is increasing in the coastal waters of the State and it can be expected to grow considerably in the coming years. Overall mariculture activities have the potential to increase food supplies and provide employment and with proper management can be a compatible activity for the coastal critical areas. As with all activities in these sensitive areas, there need to be controls to insure that disruptions caused by such operations are minimized or eliminated and public trust issues are properly addressed.

(3) Specific standards which shall apply are as follows:

(a) No commercial mariculture operation will be allowed within 50' of an existing dock or block access to such dock unless conducted by the dock owner or with the dock owner's permission. If a dock is later permitted and constructed in a mariculture area, any affected mariculture operation must be moved to comply with this regulation.

(b) Each mariculture activity must file an operations plan as an addendum to its permit application. This plan must be complete and in the approved format before the application will be placed on public notice. Written confirmation of this by the Department is required. The applicant is advised this list is not all inclusive and other sections of SCDHEC, as well as other agencies, may have additional requirements. The

plan must address:

- (i) Description of proposed activities, including intended use of products, with maps showing actual coverage of critical area.
 - (ii) Potential environmental impacts and their mitigation.
 - (iii) Potential conflicts with existing co-users and their mitigation.
 - (iv) Navigational issues and plans for marking areas and identifying confinement structures.
 - (v) Steps taken to guarantee removal of mariculture structures in case of abandonment.
 - (vi) Storm damage plan.
- (c) All structures, such as holding pens, shall be designed to be as unobtrusive visually as possible, with navigational markers meeting Coast Guard requirements, if any.
- (d) All mariculture permits will be conditioned to require the permittee to agree to adopt Best Management Practices (BMP's). These BMP's must be updated as industry standards and technology changes.
- (e) Private, non-commercial mariculture operations will be limited to no more than two hundred square feet of growing surface. These operations will be permitted only if the permittee owns the adjacent highland and is a riparian property owner.

(4) If a proposed mariculture activity complies with the standards stated in this regulation, a permit shall be issued unless the Department concludes that the activity is inconsistent with the basic state policies contained in Section 48-39-30, or that the activity is contrary to the public interest in that the proposed activity would unreasonably conflict with existing public uses; the proposed activity would unreasonably interfere with navigation; or the proposed activity would be otherwise inconsistent with the Coastal Zone Management Program.

P. Mooring Buoys:

(1) Mooring buoys provide moorage for vessels in open water areas. Mooring buoys, however, may cause navigational problems and hazards.

(2) Specific standards which shall apply to the placement of mooring buoys are as follows;

(a) Mooring buoys may be used to moor private or commercial vessels. Mooring buoys for private waterfront property owners shall be limited to one buoy per property, must be placed within extended property lines and placed on the same side of the channel as the property. No more than two vessels may be moored to the buoy at any time;

(b) With the exception of pumpout facilities, no commercial activity including, but not limited to, food services, T-shirt sales, concessions and boat maintenance services, may be allowed on or around moored vessels;

(c) There shall be no discharge of waste from vessels moored to buoys. Examples of such waste includes, but is not limited to, sewage, garbage and debris;

(d) Permits for private mooring buoys will only be issued to adjoining highground property owners. The mooring diameter (extent of vessel swing) does not allow the moored vessel to swing within 20 feet of extended property lines;

(e) The mooring buoy's anchor(s) must be of a type and or weight to prevent drag of the buoy and must be clearly indicated in the permit application;

(f) The mooring buoy shall be a minimum of 18 inches in diameter, be made of pliable material and have sufficient reflective material so it may be seen at night. The buoy shall have the owners name, address and permit number placed on the buoy with at least one inch letters and must be legible at all times;

(g) If the mooring buoy becomes an impedance or hazard to navigation, it must be removed or relocated by the permittee upon request by the Department. Failure to remove a mooring buoy shall result in permit revocation.

(3) The cumulative impact of private, single family mooring buoys may lead to navigational impedance and these concentrations may be considered a marina type facility. Therefore, developers and communities are encouraged to create and utilize limited mooring fields for the restricted use of the community property owners. These limited mooring fields should be in conjunction with a community docking structure and/or boat ramp for access.

30-13. SPECIFIC PROJECT STANDARDS FOR BEACHES AND THE BEACH/DUNE SYSTEM.

A. Normal Maintenance and Repair of Habitable Structures: Normal maintenance and repair of habitable structures is allowed without notice to the Department. See R.30-5(A)(10) and R.30-1(D)(33).

B. Construction of New Habitable Structures: If any part of a new habitable structure is constructed seaward of the setback line, the owner shall certify to the Department that construction meets the following requirements:

- (1) The structure is located as far landward on the property as practicable.
- (2) That portion(s) of the habitable structure seaward of the setback line is no larger than five thousand square feet of heated space.
- (3) A drawing has been submitted to the Department showing a footprint of the structure on the property, a cross section of the structure, and the structure's relation to property lines and setback lines which affect the property.
- (4) No erosion control structure or device is incorporated as an integral part of the habitable structure pursuant to Section 48-39-290.
- (5) No part of the building is being constructed on the primary oceanfront sand dune or seaward of the baseline or on the active beach.

(6) When required, all mitigation meets the standards of the Mitigation Policy adopted as part of the

State Beachfront Management Plan.

C. Additions to Habitable Structures: Additions located wholly or partially in the setback area are allowed provided the following requirements are met:

(1) The additions together with the existing structure do not exceed five thousand square feet of heated space seaward of the setback line.

(2) Additions to habitable structures comply with the conditions of new habitable structures as set forth in R.30-13(B).

(3) The additions must be located no farther seaward than the existing structure, i.e. must be landward or upward of the existing structure. The linear footage of the structure, parallel to the coast, cannot be increased.

(4) Additions constructed totally landward of the setback area do not require any notice to the Department.

D. Repair and Renovation of Habitable Structures: Repair and renovation of a habitable structure located wholly or partially in the setback area damaged but not destroyed beyond repair, due to natural or man-made causes is allowed after notice and written documentation to the Department.

E. Replacement or Rebuilding of Habitable Structures: A habitable structure located wholly or partially in the setback area which has been destroyed beyond repair due to natural causes may be replaced or rebuilt provided all of the following requirements are met:

(1) The total square footage of the replaced structure seaward of the setback line does not exceed the total square footage of the original structure seaward of the setback line.

(2) The linear footage of the replaced structure parallel to the coast does not exceed the original linear footage parallel to the coast.

(3) The replaced structure is no farther seaward than the original structure.

(4) Where possible, the replaced structure is moved landward of the setback line or if not possible, then as far landward as practicable, considering local zoning and parking regulations.

(5) The reconstruction is not seaward of the baseline unless permitted elsewhere in Section 48-39-250 through 48-39-360.

(6) Replacement of a habitable structure destroyed beyond repair due to man-made causes is allowed provided the rebuilt structure is no larger than the original structure it replaces and is constructed as far landward as possible, but the new structure must not be farther seaward than the original structure.

F. Landscaping, Earthmoving and Fill for Landscaping: Seaward of the setback line, the installation of materials and associated amenities, moving of earth and placing of fill to accomplish these installations are allowed provided all of the following requirements are met:

(1) A comprehensive landscaping plan is submitted to and approved in writing by the Department.

Appendix D - Beaufort County Dock Ordinance

AN ORDINANCE OF THE COUNTY OF BEAUFORT, SOUTH CAROLINA, TO AMEND THE ZONING AND DEVELOPMENT STANDARDS ORDINANCE, PERTINENT PORTIONS OF SUBSECTION 5.326, WATER DEPENDENT USES ARE BEING AMENDED AS FOLLOWS.

BE IT ORDAINED, that County Council of Beaufort County, South Carolina, hereby adopts the following amendments to the Zoning and Development Standards Ordinance pertaining to portions of Subsection 5.326, Water Dependent Uses, as follows:

SUBSECTION 05.326 WATER DEPENDENT USES

Waterways are the domain of the public, and should be regulated to maintain their pristine quality for the citizens of Beaufort County. Areas of ecological significance should be identified and protected. Water dependent uses should be spaced as far apart as feasible, consistent with minimal adverse impacts. The following shall apply to all water dependent uses:

A. **NAVIGATIONAL STRUCTURES OR AIDS.** The regulation of navigational structures or aids shall be under the jurisdiction of the State Ocean and Coastal Resource Management Office or appropriate federal regulators.

B. **DOCKS, PIERS, AND WHARFS**

1. Tidal creeks and shallows are the most sensitive, ecologically, and are, therefore, being regulated.

2. Small tidal creeks and shallows, which fall within the County, are defined as those bodies of water, as per the Beaufort County Official Small Tidal Creeks and Shallows delineation map. Private docks and community docks in small tidal creeks and shallows may be allowed on both existing lots of record, and new subdivisions under the following criteria:

a) Lots in new subdivisions must have a minimum of two hundred and fifty (250') feet of frontage along the waterbody. Existing lots of record are exempt from this requirement. Major subdivision of lots, as defined in Section 13.210, fronting tidal creeks and shallows that includes construction of a community dock in lieu of private individual docks, shall also be exempt from the minimum frontage requirement of 250 feet. Major subdivisions with no proposed docking facility or a community dock shall be permitted at allowable lot widths set forth in Articles 04, Table 4.210 Lot and Building Standards and provisions set forth in Article 13, Subdivision Design.

b) Dock facilities will neither interfere nor adversely impact navigation. No dock shall be permitted to be constructed where the length of the dock shall exceed three

hundred (300') feet in total length, inclusive of pierheads, floats, boatlifts, ramps, mooring, pilings and other associated structures, with the exception of existing lots of record where two or more owners of adjoining lots agree to create a community dock, in lieu of individual private docks. In these cases a bonus of one (1) foot of dock length over 300 feet, for every foot of waterfront footage exceeding three hundred (300') feet shall be granted to permit a community dock with a maximum length of 500 feet.


- c) The dock, pier, boat lift, floating dock, walkway and any appendages thereto allowed under this ordinance shall normally be constructed within the extended property lines of the owner and shall further adhere to the set back requirements of the ZDSO, more specifically, be no closer than twenty (20') feet from extended side property lines, however construction may be allowed closer than 20 feet, or over extended property lines where there is no material harm to the policies of this ordinance;
- d) The maximum width of the walkway or pier between the highland and the pier head shall be four (4') feet, unless compelling circumstances exist whereunder the four (4') foot limit would render the dock unusable by the owner, members of his or her family, or reasonably anticipated users. The walkway may have a railing, but shall have no walls, which impede the flow of air through the walkway. The walkway, pier head, and floating dock shall not be enclosed nor shall there be any walls of any kind on any side of the same. However, safety rails with slats at least two (2") inches apart shall be allowed provided that they do not exceed three (3') feet in height;
- e) Electrical cutoff fixture lighting shall be allowed along the walkway and at the head of the dock, provided said lighting is shielded to direct the light down onto the dock and away from any adjoining residences and the creek, and further, provided the electrical power is constructed and attached in conformance with applicable electrical safety codes as delineated in the Southern Building Codes, as adopted by Beaufort County.
- f) No plumbing shall be allowed, except for water sinks and faucets. All toilets, port-o-lets, or any other means of sewage collection or disposal is strictly prohibited;
- g) Boat lifts shall be allowed, provided that no portion of the boat when fully elevated shall extend higher than twelve (12') feet above mean high water, excluding masts, tower, antennae, and outriggers;
- h) The use of docks shall be limited to private, non-commercial uses, unless allowed for as part of a Commercial Fishing Village Overlay District;
- i) All docks, associated structures and boats secured thereto, shall be maintained to ensure safe usage and to prevent any potential hazard to navigation.

3. Notwithstanding any other provision of this ordinance, and pursuant to paragraph 4 below pertaining to reconstruction or repairs, any owner of a lot on the date of enactment of this ordinance who has in his or her possession a permit for construction of a dock in a size or length exceeding these specifications, may construct the dock in compliance with the permit, as long as the permit remains valid.

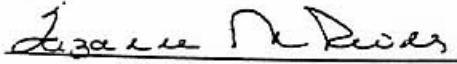
4. Notwithstanding any other provision of this ordinance, any dock, pier, boat lift, floating dock or walkway, properly permitted prior to the date of enactment of this ordinance and fully constructed within twelve (12) months of the date of enactment of this ordinance, may be repaired or reconstructed in the same size and length in the event any portion of the structure is damaged or destroyed. However, any dock, pier, boat lift, floating dock or walkway, constructed in a size and/or length exceeding this ordinance pursuant to an existing permit at the date of enactment of this ordinance, but **not** fully constructed within twelve (12) months of the date of enactment of this ordinance, may **not** be repaired or reconstructed in a length or size exceeding this ordinance in the event it is damaged by more than fifty (50%) percent of its replacement value.

Adopted this 8th day of May, 2000.

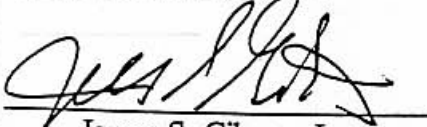
COUNTY COUNCIL OF BEAUFORT COUNTY

By: 
Frank Brafman
Chairman

ATTEST


Clerk to Council

COUNTY ATTORNEY


James S. Gibson, Jr.
County Attorney

First Reading: March 27, 2000
Second Reading: April 24, 2000
Public Hearings: April 24, 2000 and May 8, 2000
Third and Final Reading: May 8, 2000

Amending: 99/12
2000/2

**The Official
Beaufort County
Small Tidal Creeks &
Shallows Mapping**

Adopted 01.24.00
Updated 04.20.00

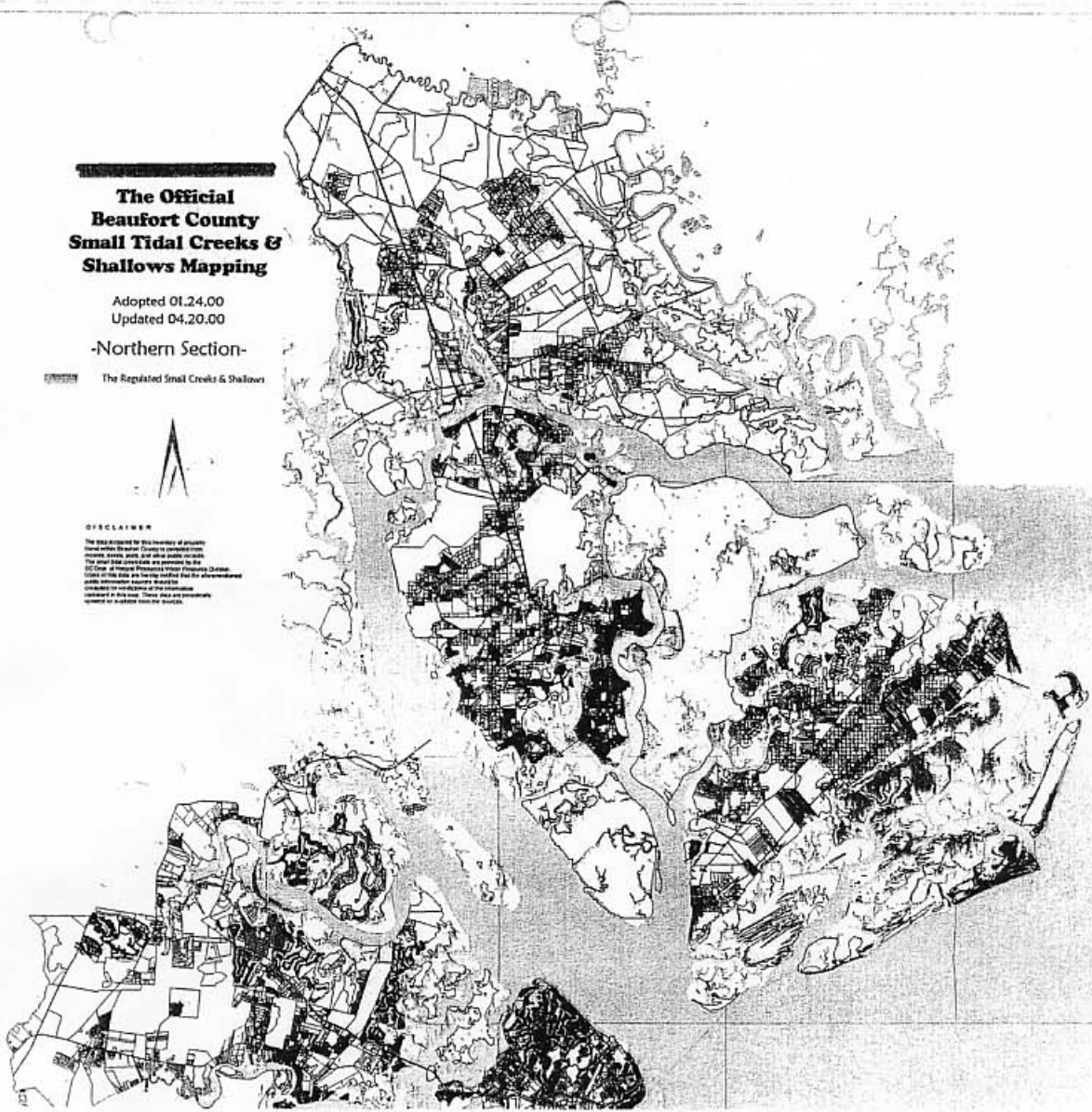
-Northern Section-

The Regulated Small Creeks & Shallows

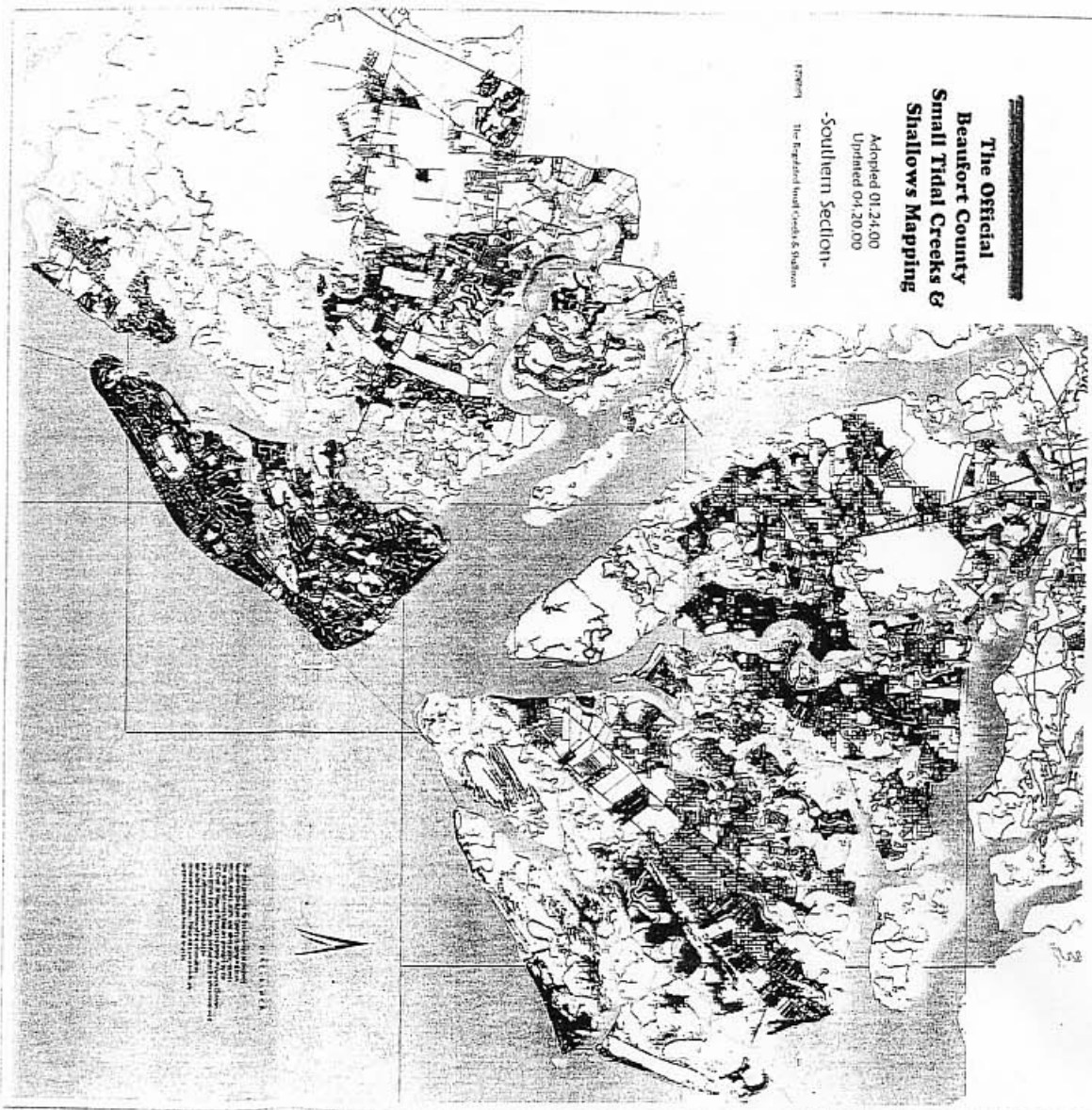


DISCLAIMER

The data depicted for this inventory of publicly owned water features in Beaufort County is derived from aerial photography, ground surveys, and other public records. The data is provided as a service to the public and is not intended to be used for any purpose other than that for which it was collected. The data is not intended to be used for any purpose other than that for which it was collected. The data is not intended to be used for any purpose other than that for which it was collected.



Adopted 01.24.00
Updated 04.20.00
-Southern Section-



Appendix E – Articles

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Boaters debate no-wake issue

THE ASSOCIATED PRESS

CHARLESTON — There are 197 no-wake zones scattered across the waters of South Carolina and a key legislator says that's too many.

"I'm about ready to go put up signs that say 'South Carolina is a no-wake state,'" said Rep. Charles R. Sharpe, R-Wagener, chairman of the House Agriculture, Natural Resources and Environmental Affairs Committee, which reviews no-wake requests. "We are getting to the point where we have too many."

After state regulators turned down a request by residents of one Berkeley County neighborhood for a no-wake zone near their dock, they asked legislators to approve the change. That raised concerns it is too easy to bypass the Natural Resources Department, which rarely approves no-wake requests.

Property owners, such as those in the Pimlico area along the Cooper River, cite environmental and safety issues. They say slowing boat traffic can ease erosion and protect people from speeding boats. Boaters say too many no-wake zones add too much time to boating and fishing trips.

When state regulators told residents of Pimlico that a no-wake zone was not warranted, they asked state Rep. James Law, R-Moncks Corner, to submit legislation that is pending in the General Assembly.

Frank Evans of Goose Creek, who uses the Cooper River, opposes Pimlico's request. He fears property

owners could start using no-wake zones to solve noise and quality-of-life issues.

But Law, Pimlico resident Gene Flynn and other property owners say the number and size of boats is constantly increasing, creating safety hazards.

The department generally grants no-wake zones only for safety reasons. Last year, it received 73 requests for no-wake zones but approved only three, one a temporary zone off Sullivan's Island for raising the Confederate submarine H.L. Hunley.

Violating a zone, whether created by department regulation or by a separate state law, can cost from \$75 to \$425, depending on local court costs.

IT'S THE CUT THAT MAKES IT HAPPEN!



TAMMY MARTIN



SAL PIAZZA



COLLEEN BALDWIN



Subj: Fwd:Re: In the News...Speed, no-wake zones raise concerns about property values on waterfront
Date: 11/12/2001 9:11:15 AM Eastern Standard Time
From: news@news-jrnl.com
To: news@news-jrnl.com
Sent from the Internet (unverified)

Date: Mon, 12 Nov 2001 09:10:37 -0500
From: "Pete Peterson" <Ppeterson@appliedtm.com>
To: "Devin Prater" <Dprater@appliedtm.com>,
 "Edward Modzelewski" <Emodzelewski@appliedtm.com>,
 "James Craven" <Jcraven@appliedtm.com>,
 "John Shaffer" <JShaffer@appliedtm.com>,
 "Mark Bolchoz" <MBolchoz@appliedtm.com>,
 "Nancy Schilling" <Nschilling@appliedtm.com>,
 "Pat Schlegel" <PSchlegel@appliedtm.com>,
 "Robert Semmes" <Rsemmes@appliedtm.com>,
 "Robbie Wall" <Rwall@appliedtm.com>,
 "Sam Phlegar" <Sphlegar@appliedtm.com>,
 "Tim Mason" <Tmason@appliedtm.com>
Subject: Re: In the News...Speed, no-wake zones raise concerns about property values on waterfront
Mime-Version: 1.0
Content-Type: text/plain; charset=US-ASCII
Content-Transfer-Encoding: quoted-printable
Content-Disposition: inline

Hawk McMillan is one of our clients. We did a feasibility/permittability study for a new marina in that area called Bayou Bay.

>>> Devin Prater 11/12/01 08:53AM >>>
 Speed, no-wake zones raise concerns about property values on waterfront

By JIM HAUG (jim.haug@news-jrnl.com)
 and IVONA LERMAN (ivona.lerman@news-jrnl.com)
 Staff Writers

ORMOND BEACH – After 23 years of selling waterfront homes, Hawk McMillan got his own home with a view.

From his screened-in patio, he can watch manatees playing in the Halifax River or ospreys flying toward the Australian pines of an Intracoastal Waterway island.

For all this serenity, McMillan is uneasy about the future, fearful stringent environmental regulations could depreciate property values and negatively impact a local economy that is reliant on tourism and boating.

"If I can't use my boat, I'm going to sell my house," McMillan said.

Proposed speed zones would slow traffic to 6 mph or less. Boaters would need two hours or longer to travel from Dunlawton Bridge to the Ponce Inlet and out to sea.

The public hearing process for speed zones is not likely to begin until the spring, but environmentalists argue that regulations will increase property values.

Since the regulations are intended to protect natural resources, property owners will be saving their assets, environmentalists argue.

"People come and buy here because we're not a big urban area," said Jane Glover, a real estate agent and member of the Halifax/Indian River Task Force.

"We don't have I-4 running through our back yards. There are still woods, streams, waterways and other places where people can enjoy nature," Glover said.

Speed zones could benefit homes since boats running at high speeds cause a lot of wave action and can erode some of the property, she said. "More expensive areas all have more rules. It makes them more exclusive. There's more control over what happens."

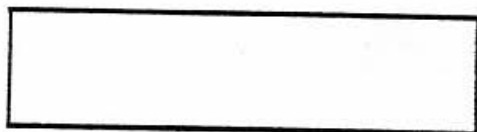
McMillan, a spokesman for Standing Watch, a boaters' rights group, likes the manatees as much as anybody, he said.

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US marine environmental zone established

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United States

New Jersey's Tidelands Resource Council has approved its first marine conservation zone, which bans personal watercraft (PWC), commercial boats and kayak tour operators from 238.8 hectares of marshland and shallow water at the Sedge Islands at Island Beach State Park.

Tidelands council members said they want to review management of the islands again within a year to reassure fishing and boating interests that worry the plan could lead to wider restrictions on Barnegat Bay.

Donald Wilkinson, a principal wildlife biologist with the state Division of Fish and Wildlife, and Island Beach State Park Superintendent William Vibbert said the plan is drafted to protect traditional fishing and boating activities along with wildlife.

Thomas P. Fote, legislative chairman for the Jersey Coast Anglers Association and New Jersey State Federation of Sportsmen's Clubs, said he wasn't so sure.

Fote said the clubs don't oppose controls on PWC, but fishermen are worried about the council granting authority for park officials to control boat traffic on tidal waters.

"We've run into situations in other parks where arbitrary decisions (on public access) were made without science" to justify area closures, Fote said.

Agencies must agree on plan

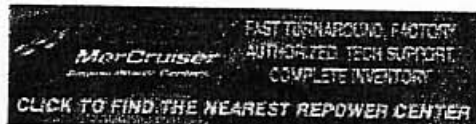
Officials from the state Division of Parks and Forestry and Division



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- Crowded fishing boat market becoming more tricky to navigate
- Manatee agreement will stifle boating
- Show watch
- Small engine companies threatened by environmental proposals

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of Fish and Wildlife said a mutual agreement guarantees both agencies must agree on rules governing the Sedge Islands conservation zone.

They said that agreement will ensure that the public has a say in matters, because both divisions have oversight councils that include conservationists, fishermen and hunters.

The Sedge Islands are the state's biggest nesting area for once-endangered ospreys, with 26 nests. The area also has a heron rookery and sandy beaches where threatened shorebirds nest in spring and summer.

For related information, click [here](#), or go to the [Bulletin Board](#) to discuss the topic with other recreational marine industry professionals.

— Ken Matthews

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PWCs banned in US marine sanctuary

NOAA

United States

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A US environmental organization reported Monday that the National Oceanic and Atmospheric Administration (NOAA) has finalized rules to prohibit recreational use of personal watercraft (PWC) throughout California's Gulf of Farallones National Marine Sanctuary due to perceived threats to the area's wildlife, visitors and ecology.

California-based Bluewater Network announced that the ban is the result of a petition filed by the Environmental Action Committee of West Marin, which was supported by Bluewater.

The ban begins 10 October 2001, and will be the largest PWC-free zone in the United States, according to Bluewater.

Monita Fontaine, executive director of the Personal Watercraft Industry Association (PWIA), confirmed that the ban has been scheduled.

In response, she said, "We will petition for NOAA to reconsider this in light of good science." She added that the environmental groups pushed for this "only for sensation."

The environmental impact statement requested by PWIA must not have been based on the current technology, said Fontaine. Few PWCs are used in the sanctuary in any case, she added.

"This jetski ban is great news for the Gulf of Farallones," said Sean Smith, Public Lands director for Bluewater. "We urge NOAA at other marine sanctuaries to take similar action to protect the visiting public, as well as sanctuary resources and wildlife from these noisy, dirty and dangerous machines."

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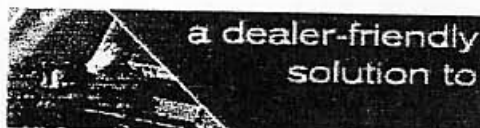
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PWC ban in Keys recommended by advisory council

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United States

The Florida Keys National Marine Sanctuary advisory council voted Tuesday to recommend a ban on personal watercraft (PWC) in the sanctuary — a move that will now be considered by a federal agency and will become the subject of public comment.

The recommendation by the council to the National Oceanic and Atmospheric Administration (NOAA) will also be subject to state scrutiny, according to a report in *The Miami Herald*, because the sanctuary includes waters in both federal and state jurisdictions.

An updated five-year plan for the sanctuary, which may or may not include a recommendation on a PWC ban, won't go to Florida Governor Jeb Bush until next July, said the report.

A Florida statute that prohibits local or country governments or agencies from enacting "discriminatory" laws against PWCs may not be applicable in this case, said the paper, because the law doesn't mention federal or state restrictions.

PWC prohibitions already in place in Everglades National Park and in Biscayne National Park are being challenged by PWC industry organizations.

The number of PWCs registered in Monroe County, encompassing the Keys, increased by 29 percent from 1997 to 2000, for a total of 1,721 vessels, reported the paper.

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— BII staff



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Fri, July 20, 2001

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New pressure on waterways must be met with vigilance

Despite exploding growth, priority of clean water must reign

Published Friday, July 20th, 2001

No room at the marina? It's a common question as Beaufort County and the entire South Carolina coast grows. But let's make sure it remains a personal problem, and not one borne by all of society.

Clean waterways — from the mighty Atlantic Ocean to the picturesque tidal creeks — set Beaufort County apart as a place to live, work and vacation. But something else also sets Beaufort County apart. It is the fastest growing county in the state. It is easy to see that there are choppy waters ahead.

Some foresee a day when it will have to be said: "That's it! No more boats."

It's not that simple, with a dictator walking out on the balcony and making a decree. But there is truth in the statement because there are many regulations in place that — if enforced — rank protection of the public resource above individual wishes.

As boating traffic increases (there are already 10,000 boats registered in Beaufort County), the laws designed to protect the waterways will be placed under ever-increasing pressure. The laws need to be upheld.

And the regulations need to be updated as new research comes to light.

The laws should not be riddled with exceptions and crippled by a lack of enforcement.

Just because there will be greater pressure to build a private dock on every lot and to expand marinas and to build new marinas, that does not mean that it must happen. Nothing new should be built if it threatens the clean waters that are the county's economic and cultural backbone.

County, state and federal authorities who review permits for new boating facilities need to also take into account the cumulative environmental impact of all the permits as a whole.

And they must listen to science, not business plans. More than \$1 million in research is taking place now to better define what threatens southern Beaufort County waterways and what regulations need to be in place to keep the rivers clean.

It will take more study, and more political fortitude, to write good law and to stick by it. Clean waterways are a top priority in this county, and that priority must trump any and all threats to our invaluable public resources.

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Southern Beaufort County's

Fri, July 20, 2001

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New pressure on waterways must be met with vigilance

Despite exploding growth, priority of clean water must reign

Published Friday, July 20th, 2001

No room at the marina? It's a common question as Beaufort County and the entire South Carolina coast grows. But let's make sure it remains a personal problem, and not one borne by all of society.

Clean waterways — from the mighty Atlantic Ocean to the picturesque tidal creeks — set Beaufort County apart as a place to live, work and vacation. But something else also sets Beaufort County apart. It is the fastest growing county in the state. It is easy to see that there are choppy waters ahead.

Some foresee a day when it will have to be said: "That's it! No more boats."

It's not that simple, with a dictator walking out on the balcony and making a decree. But there is truth in the statement because there are many regulations in place that — if enforced — rank protection of the public resource above individual wishes.

As boating traffic increases (there are already 10,000 boats registered in Beaufort County), the laws designed to protect the waterways will be placed under ever-increasing pressure. The laws need to be upheld.

And the regulations need to be updated as new research comes to light.

The laws should not be riddled with exceptions and crippled by a lack of enforcement.

Just because there will be greater pressure to build a private dock on every lot and to expand marinas and to build new marinas, that does not mean that it must happen. Nothing new should be built if it threatens the clean waters that are the county's economic and cultural backbone.

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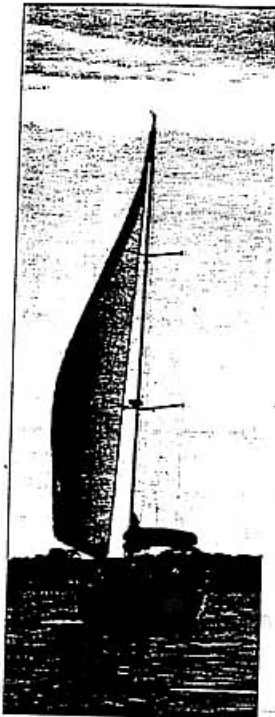
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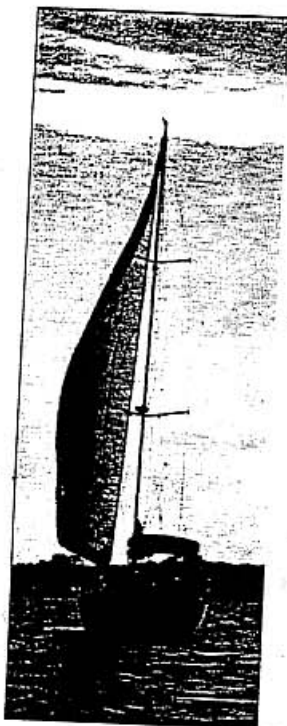
Appendix F – Draft Broad Creek Management Plan



Broad Creek Management Plan

Karen Cullen
Hilton Head Island

Presented to SAMP joint committee
meeting May 22, 2001 at the Beaufort
Public Library.

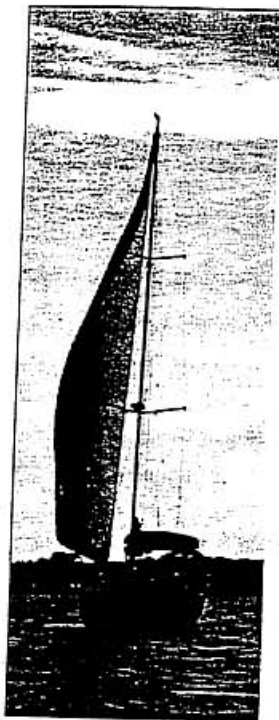


Introduction

- ▲ Broad Creek should be a blueway
- ▲ Concerns about water quality
- ▲ Need for balance between
 - ✗ human use & wildlife
 - ✗ stormwater disposal & the environment
 - ✗ shellfish interests & others
 - ✗ different types of recreational uses

Comprehensive plan says Broad Creek should be a blueway, a focal point for the community, with emphasis placed on water activities and enjoyment of scenic beauty.

Community is concerned about water quality of creek, how to improve it or at minimum not allow it to get worse.



Purpose

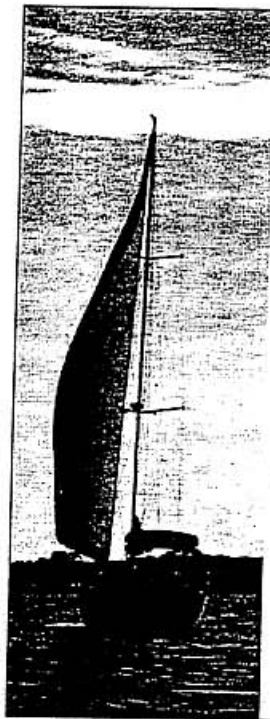
⚓ To create an action plan to address:

- ✗ water quality
- ✗ environmental quality
- ✗ natural resources & wildlife
- ✗ recreational opportunities
- ✗ public access

Plan to be comprehensive, addressing (list)

All these things are interrelated; each has impacts on the others; improvements in one area may lead to improvements in other areas.

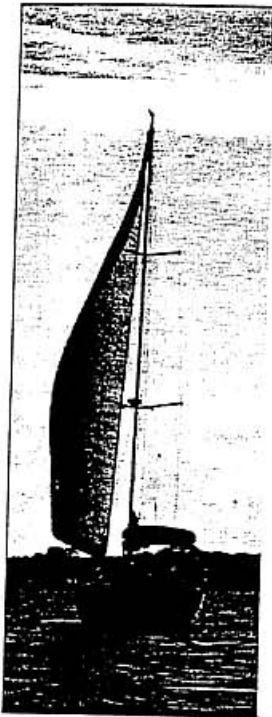
For example, improving the water quality may improve the oyster beds as habitat for juvenile fish, therefore improving fisheries, therefore improving foraging for birds, therefore improving the creek as a wildlife habitat and the recreational qualities of the creek.



Issues Studied

- ⚓ Environment & wildlife
- ⚓ Stormwater management
- ⚓ Wastewater management
- ⚓ Land use & zoning
- ⚓ Recreation & boating management

These are the things the plan focuses on.



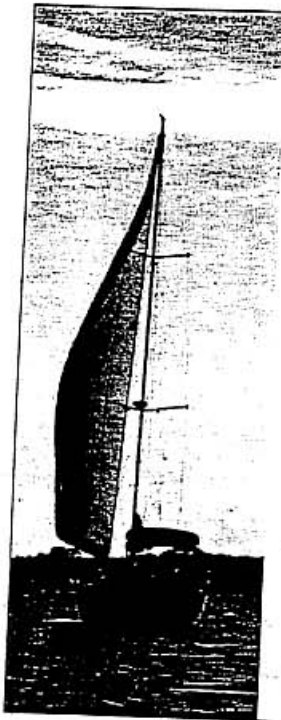
Progress

- ⚓ Water quality monitoring
- ⚓ Wildlife & recreation surveys
- ⚓ Oyster bed mapping - pilot project
- ⚓ Research other studies
- ⚓ Develop recommendations, BMPs
- ⚓ Write the plan
- ⚓ Develop educational brochures

- oyster bed mapping – available data is old and no longer accurate in many areas, we will do a pilot study this summer to try mapping the oyster beds using gps; if successful, will try to find funding to map the entire creek or all island waterways.

- Research – Okatie/BC study, other wq studies/data, stuff done in other parts of the country.

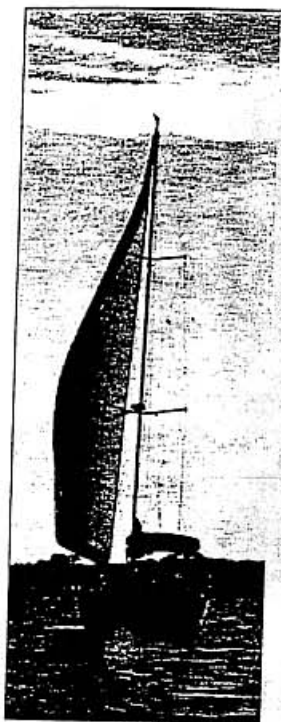
- Brochures – will cover topics such as boating in BC, how to reduce pollution from boats, wildlife on BC, how to landscape to minimize negative impacts on BC, shellfish & restoration programs.



Findings - Water Quality

- ⚓ Tested bi-weekly at 15 sites, 5 on Broad Creek
- ⚓ High levels of fecal coliform at all sites at one time or another
- ⚓ Only one site from human source
- ⚓ Most sites have high phosphate, lower nitrogen & ammonia

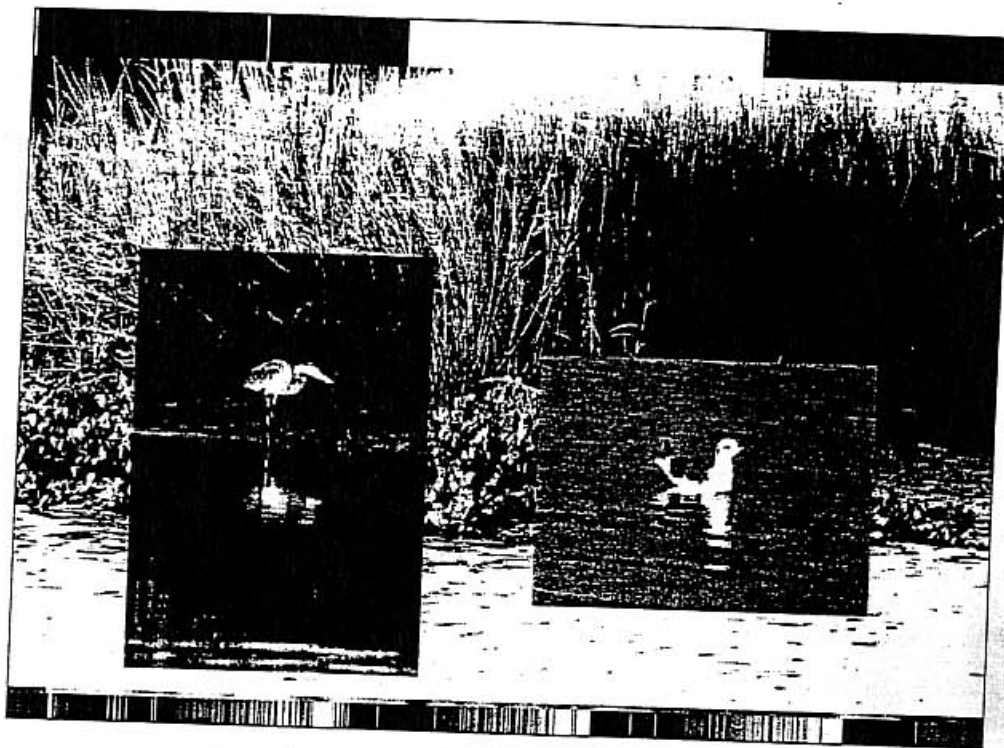
- Bi-weekly since Sept 99 at 15 Sites on the island including 5 on BC.
- Results indicate great variability from week to week.
- High fecal coliform found at all sites at one time or another. High counts more than 50% of the time at all BC sites; two sites every time.
- Human sources contributed to high fecal coliform counts at Broad Pointe site, traced back to failed septic systems at a MH Park.
- Most sites exceed the standard for phosphate but are better for nitrogen & ammonia (at less than 50th percentile).



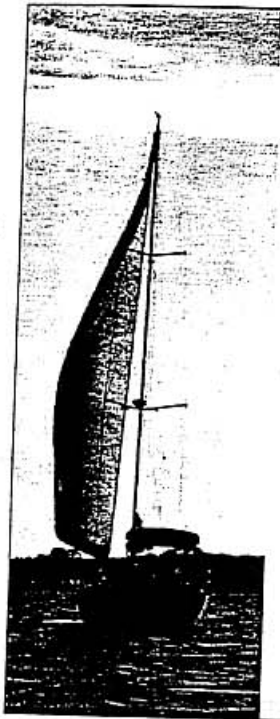
Findings - wildlife

- ▲ 4,353 observations
- ▲ Majority seen in headwaters
- ▲ Majority seen during Fall
- ▲ Several endangered species
 - ✕ manatee, bald eagle, woodstork, piping plover, loggerhead sea turtle

- Two types of surveys – site based and seasonal.
- 36 Trips in all, with 4,353 observations, 74 different species.
- Vast majority of observations were birds.
- Most activity in headwaters, although on the seasonal trips there was more activity in the mouth.
- Most activity in Fall, followed by summer, spring, and winter.
- Endangered species: Brown Pelican (delisted), West Indian manatee, bald eagle, Woodstork, piping plover, loggerhead sea turtle



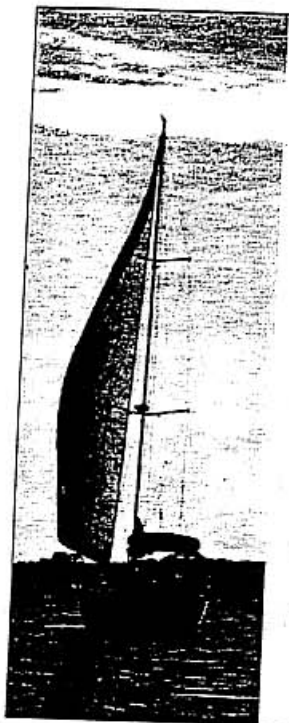
Photos of birds and a dolphin.



Findings - Recreation

- ▲ 1,607 boats
- ▲ Mostly small power, kayaks
- ▲ Heaviest use during summer months
- ▲ Majority of kayaks in headwaters
- ▲ Majority of power in mid & mouth
- ▲ Creek used like a road to travel to less restricted waters

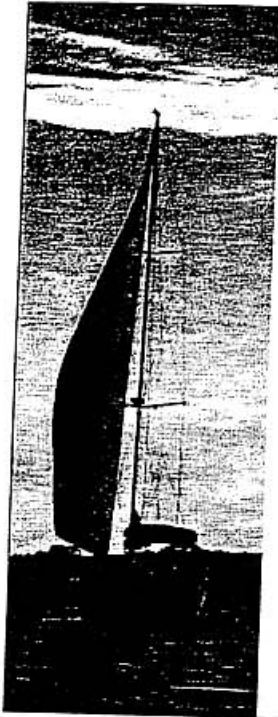
- 26 Trips on the creek, saw 1,607 boats.
- Trips at all tides and times of day, including weekends.
- More small power than anything else, with 36% of the total; followed by kayaks with 23%; then pwc's at 13%, commercial tours at 7%, large power at 7%, and ferries, fishing, sailboats, skulls, and canoes each with less than 5%.
- As expected, the heaviest use of the creek was during the summer, at 64%. Spring 14%, fall 11%, and winter 3%.



Implementation

- ⚓ BMPs to improve water quality
- ⚓ Possible land acquisition
- ⚓ Recommendations for use of Town land
- ⚓ Possible zoning changes
- ⚓ Public education
 - ✕ brochures
 - ✕ web site
 - ✕ seminars

- Best management practices will be recommended to be added to the town's development regulations to improve the water quality of the stormwater entering the creek; roughly 2/3 of the island drains into BC.
- We will examine the vacant parcels to determine if it would be in the town's best interest to acquire them for the benefit of the creek, wildlife, habitat, recreation.
- Zoning changes – to reduce potential impacts to the creek, viewshed.
- An educated public will be more likely to support such changes to protect the creek.



Completion Date

- ▲ Draft of plan by mid-summer
 - ▲ Brochures by end of summer
 - ▲ Final plan by fall
- Drum lead
completion date is
November 30, 2001.

Appendix G – Sewer Pump-Out Grant Applications

**South Carolina Department of Health and Environmental Control
Office of Ocean and Coastal Resource Management**

MARINE SEWAGE PUMPOUT GRANT PROGRAM APPLICATION

1. Facility Name: _____ Phone: _____

2. Contact Person: _____

3. Address: _____

City/State/Zip: _____

Marina Address (if different from above): _____

County: _____

4. Name of waterbody the facility is located on or next to: _____
(Include map or chart showing exact location of facility)

5. Name of facility owner: _____ Phone: () _____

Address: _____

City/State/Zip: _____

6. PROJECT DESCRIPTION

☐ Portable Pumpout Station

☐ Fixed Pumpout Station

☐ Slip-side Pumpout

☐ Portable Toilet Dump Station

☐ Expansion/Improvement/Renovation of Existing Service

7. Explain fully, including brand or manufacturer (attach additional sheets if necessary including engineering):

8. Pumpout/Dump Station waste will discharge to:

- ☐ City Sewer (Submit evidence, in writing, of consent from owner of the system.)
- ☐ Septic System (Submit evidence, in writing, of approval from local health officials, stating that sufficient sewage disposal capacity is available.)
- ☐ Unit will be emptied by licensed septic hauler for disposal by a treatment facility. (submit evidence, in writing, of a contract with a licensed septic hauler as well as well as approval from local health officials.)
- ☐ Other (explain) _____

9. Location of Pumpout/Dump Station (attach map indicating location):

- ☐ on bulkhead ☐ fuel dock
- ☐ mobile unit ☐ all slips
- ☐ other dock ☐ boat mounted

10. Pumpout/Dump Station Operation

Who will operate the facility: ☐ boater (self-serve) ☐ marina staff
☐ other (describe) _____

11. Availability of Service:

Months (check) ☒ Jan ☒ Feb ☒ Mar ☒ Apr ☒ May ☒ Jun ☒ Jul ☒ Aug ☒ Sep ☒ Oct ☒ Nov ☒
Dec

Days (check) ☒ Daily (or only) ☐ Mon ☐ Tue ☐ Wed ☐ Thur ☐ Fri ☐ Sat ☐ Sun

Hours ☐ 24 Hours or Between _____ A.M. and _____ P.M.

Fee Charged ☒ Free or \$5_/use (Maximum of \$5.00)

12. GRANT REQUEST

Cost of Pumpout/Dump Station \$ _____

Brand/Manufacturer: _____

Site Improvement Costs \$ _____

Other Costs (if applicable) \$ _____

TOTAL PROJECT COSTS:

MATCHING FUNDS*

*Required Match (See Contract Guidelines)

(75/25 cost sharing) allows for \$5.00 charge for Pumpout/dump service

Cash \$ _____

Inkind Services \$ 0.00

Permit Fees \$ 0.00

Engineering Services \$ _____

TOTAL MATCH \$ _____ 25% of total project cost

Amount of Assistance Requested \$ _____ 75% of total project cost

Expected date to begin new pumpout/dump station service: _____

Return Application To:

SCDHEC-OCRM
Attn. C.W. "Rocky" Browder III
Regional Permit Administrator
PO Box 587
Beaufort, SC 29901

Marina Pump-Out Facility DHEC Notification of Construction

Marina Name:

Mailing Address:

Telephone Numbers: Business:

Emergency:

Emergency Contact Individual:

Description of Location of Marina:

Marina Owner:

Number of Slips:

Number of Dry Stacks:

Pumping Capacity of Pump-Out System:

Pump-Out System Manufacturer:

Engineer:

Registration Number:

Company:

Address:

Telephone Number:

Fax Number:

Date Construction to Begin:

Date Construction is to be completed:

I certify that the attached construction plans and specified Pump-Out Facility Manufacturer are in conformance with DHEC Standard Specifications for Pump-Out Facilities in South Carolina.

Engineer's Signature:

Date:

I certify, as the legal representative for the marina, that the Pump-Out Facility will be constructed in conformance with the attached construction plans and in conformance with DHEC Standard Specifications for Pump-Out Facilities. I agree to allow, if required by DHEC, to allow DHEC staff full access to the marina for the purpose of ensuring conformance with the attached construction plans and DHEC Standard Specifications;

Owners Signature:

Date:

Attachments: Pump-Out Facility Construction Plans:

Marina Pump-Out Facility DHEC Notification of Completion

Marina Name:

Mailing Address:

Telephone Numbers: Business: Emergency:

Emergency Contact Individual:

Marina Owner:

Number of Slips:

Number of Dry Stacks:

Pumping Capacity of Pump-Out Facility:

Pump-Out Manufacturer:

Engineer:

Registration Number:

Company:

Address:

Telephone Number:

Fax Number:

Date Project Completed:

I certify that the marine sewage pump out system at Bohicket Marina was installed in conformance with DHEC Standard Specifications for Pump-Out Facilities.

Engineer's Signature:

Date:

Appendix H – Personal Watercraft Regulation Examples

PERSONAL WATERCRAFT REGULATION EXAMPLES

Beaufort County is not alone in the discussion concerning personal watercraft use and restrictions. Following is a "snapshot" of national efforts underway on behalf of waterway safety and management in the year 2001:

Iowa - In 2001, the particular concern of this state's boating community is this statistic: Personal Watercraft (PWC) caused 44% of the waterway accidents in Iowa in 2000. The state is now requiring: licensing of boaters, training for PWC users less than 16 years old, lower nighttime speed limits, and increased DNR enforcement and funding for same.

North Carolina - A measure to change NC State law governing the use of jet skis and other types of personal watercraft took effect December 1, 2000, requiring personal watercraft users to cut their speeds and idle when within 100 feet of an anchored vessel, shoreline, dock, pier, swimmers, surfers, anglers, or rowboats. Personal watercraft operators say this is sometimes nearly impossible to do. The new laws failed to take into account the narrow portions of the rivers and the lakes, and these issues are under current review.

Massachusetts - In the last decade, State laws have been enacted to protect the public safety by establishing rules of conduct governing the operation of personal watercraft, and by promoting voluntary compliance with the rules or through fines and penalties. Noncompliance with the rules has prompted enactment of general laws applied to all boats including personal watercraft. Examples of new legislation: the launching or beaching of boats, including personal watercraft, is restricted to operating no closer than 150 feet from a bathing beach, private or public; these vessels must be walked ashore; all motorboats, including jet skis and similar personal watercraft, shall be operated at headway speed (6 mph, or enough speed to maintain steering control) within 150 feet of the shoreline; no motorboat shall be operated at any time at a speed greater than is reasonable and proper having regard to lives and safety of the public, the state of visibility, the traffic density, the maneuverability of the vessel, the state of the wind, water, and current, and the proximity of navigational hazards. Penalties against operators and/or owners who violate these regulations can be as high as \$200 per offense. Massachusetts also prohibits and defines negligent operation as: (a) unreasonably jumping, or attempting to jump, the wake of another vessel, (b) following within 150 feet of a water skier, (c) weaving through congested vessel traffic, (d) speeding in restricted areas, (e) crossing unreasonably close to another vessel, (f) operating a personal watercraft in such a manner that it endangers the life, limb or property of any person, (g) towing a water-skier or any person in any manner from a personal watercraft, and (h) operating a personal watercraft during the evening.

New York - Legislation aimed at providing universal education for operators of PWCs on New York waters was proposed for the state in 2000. The new law requires all PWC operators to complete a certified safety course similar to courses now in place for teenagers who want to operate a boat or snowmobile in New York State. Personal watercraft make up less than seven percent of all registered vessels in the state of New York, but they are responsible for 30% of all accidents.

New Jersey and Connecticut have implemented similar education programs and have seen positive results on their waterways. The New York legislation will require all current and new PWC operators to take a daylong course that will be created and approved by the State Office of Parks, Recreation, and Historic Preservation and offered by certified instructors throughout the state. In addition, courses currently offered by the U.S. Coast Guard Auxiliary and the U.S. Power Squadron will meet this new state requirement. In 2001, there are more than 32,000 registered PWCs with about 100,000 operators in New York State. The goal is

to improve safety among personal watercraft operators, and safety for the operators of the other 480,000 registered vessels in the state.

Ohio - In 1996, 26% of first time registrations in Ohio were attributed to personal watercraft. Ohio registered 398,388 boats in 1996, as compared to 129,901 in 1961. That year, Ohio introduced law changes to address the changing trends in boat types and the increasing problems associated with these trends. Some of the changes include: the minimum operator age has been changed to 16 for personal watercraft; persons under 12 years of age cannot operate a watercraft over 10 horsepower unless a person 18 years or older is on board; and new regulations for exhaust mufflers on boats (effective January 1, 2000). Additionally, several changes were made to existing laws to address personal watercraft operation.

Michigan - PWCs may not operated between one hour before sunset and 8:00 a.m. Unless operating at no-wake speed, a PWC must remain 200 feet away from the shoreline on the Great Lakes. Unless in a navigable channel, river, or canal, a PWC must remain 100 feet away from any other object in the water (dock, boat, swimmer, etc.).

California - In California, numerous local regulations have been enacted in various resorts, municipalities, and reservoirs. In Marin County, a total ban was enacted in late 1999. Since that time, the County has been involved in multiple lawsuits from the PWC industry and is currently working through this process.

It should be noted that all management issues documented from other states reflect the last decade's concern regarding the new waterway vehicle called the Personal Watercraft. Prior to 1991, these vessels did not exist in the United States.

APPENDIX I – MAPPING DATABASE

Mapping database on CD Rom, compiled from County, DHEC, and DNR sources, to include:

- Shorelines
- Municipality boundaries
- Shellfish zone classifications
- No wake zones, signs
- Single property docks & community docks
- Marinas and commercial facilities
- Station Fuel Docking site
- Boat launching ramps
- Marine sewer pumpouts
- Boat Count data
- Trawling Zones